

112 South 7th Street, Suffolk, VA 23437. Applicant's representative: Leonard A. Jaskiewicz, 1730 M Street NW., Suite 501, Washington, DC 20036. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Passengers and their baggage*, in round-trip charter operations, beginning and ending in Suffolk, Portsmouth, Chesapeake, Virginia Beach, Norfolk, Newport News, Hampton, and York, James City, Surry, Isle of Wight, Sussex, Southampton, and Greenville Counties, VA, and extend-

ing to points in the United States (except AK and HA).

NOTE.—If a hearing is deemed necessary, applicant requests that it be held at both Suffolk and Norfolk, VA.

By the Commission.¹

¹ EDITORIAL NOTE.—Volume Nos. 63 and 64 will be published in the FEDERAL REGISTER on Friday, February 24, 1978.

H. G. HOMME, Jr.,
Acting Secretary.

[FR Doc. 78-4821 Filed 2-22-78; 8:45 am]

sunshine act meetings

This section FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409), 5 U.S.C. 552(e)(3).

CONTENTS

	Item
Civil Aeronautics Board.....	1
Equal Employment Opportunity Commission.....	2
Federal Energy Regulatory Commission.....	3
Federal Home Loan Bank Board.....	4
Federal Maritime Commission.....	5
Federal Trade Commission.....	6, 7
Indian Claims Commission.....	8, 9
National Railroad Passenger Corporation.....	10
National Transportation Safety Board.....	11, 12
Postal Service.....	13
Railroad Retirement Board.....	14

[6320-01]

1

[M-101]

FEBRUARY 16, 1978.

CIVIL AERONAUTICS BOARD.

TIME AND DATE: 10 a.m.—February 23, 1978.

PLACE: Room 1027, 1825 Connecticut Avenue, NW., Washington, D.C. 20428.

1. Ratification of items adopted by notation.
2. Docket 30885, Northwest's application for Chicago-Washington fill-up authority (Memo No. 6980-H, BOR, OGC).
3. Dockets 30693 and 30723, Standard and Transocean—Exemptions to engage in supplemental air transportation (Memo No. 7690, BOR, OGC).
4. Docket 19176, Petition for modification of order approving acquisition of control of Trans International Airlines, Inc., by Transamerica Corp. (Memo No. 7774, BOR, OGC).
5. Docket 30332, Agreement CAB 26883, IATA agreement proposing increase in North/Central Pacific cargo rates (Memo No. 5761-F, BFR, BIA).
6. Docket 29123, Agreement CAB 26434, R-1 and Docket 30777, Agreement CAB 27019, R-1 through R-28, IATA agreements proposing fare increases in U.S.-South/Central America longhaul fares; and Docket 29123, Pan American petition for reconsideration of Order 77-12-87 (Memo No. 7633-A, BFR, BIA).
7. Docket 30332, Pan American petition for reconsideration of disapproved U.S.-Caribbean/South and Central America cargo rates (Memo No. 7532-A, BFR, BIA).
8. Docket 30332, Pan American petition for reconsideration of disapproved U.S.-Indian subcontinent cargo rate increases (Memo No. 7588-A, BFR, BIA).

9. Alaska Airlines' petition for review of staff action rejecting tariff filing (Memo No. 7769, BPDA).
10. Docket 32004, Fare increases recently implemented by Wien (BPDA).
11. Docket 22387, Draft Order in the *Investigation of Air Express Rates* (Memo No. 4500-C, BPDA).
12. Dockets 30528, 31778, 31849, 31934, 31939, 31940, 31961, 31983, and 32106, Applications by TWA and Pan American to continue suspensions and exemptions involved in their route exchange agreement (BPDA, BIA, OGC).
13. Docket 28196, *California-Alberta Route Proceeding* (request for instructions) (Memo No. 7332-C, BIA For Information Memo dated 2/8, OGC, BIA).
14. Docket 31108, *Surinaamse Luchtvaart Maatschappij, N.V.* (Surinam Airways Limited) (OGC, BIA).
15. Docket 29740, *Belize Airways Ltd.*—Petition for Reconsideration (Memo No. 7207-A, OGC, BIA).
16. Docket 30309, Atlanta-Charleston Competitive Nonstop Case—Order on Discretionary Review (Memo No. 7753, OGC, OEA).
17. Docket 21488, *Spokane-Montana Points Service Investigation*—Order on Discretionary Review (Memo No. 7766, OGC).
18. Docket 31229, Charter Flight delays and substitute transportation (Memo No. 7611-B, OGC).
19. Recommended proposed rule defining "handicapped" and "retired" persons for the purposes of Section 8(a) of the 1977 Federal Aviation Amendments (Memo No. 7772, OGC).
20. Docket 31737, Amendment of Part 300 on Separation of Functions (request for instructions) (OGC).
21. Docket 298, Proposed order reviewing section 1104 order from the 1940's (OGC).
22. Freedom of Information Act appeals from Herbert Rosenthal and Mary DeOreo for Section "902.F" material (OGC, BOE).
23. Transfer of Functions From the Bureau of Administrative Law Judges (OGC, OS, BLJ, OC, BPDA, BIA, Managing Director).

STATUS: Open.

PERSON TO CONTACT:

Phyllis T. Kaylor, The Secretary,
202-673-5068.

[S-403-78 Filed 2-21-78; 9:19 am]

[6570-06]

2

EQUAL EMPLOYMENT OPPORTUNITY COMMISSION.

TIME AND DATE: 9:30 a.m. (eastern time), Tuesday, February 28, 1978.

PLACE: Chairman's Conference Room, No. 5240, on the fifth floor of the Columbia Plaza Office Building, 2401 E Street NW, Washington, D.C. 20506.

STATUS: Parts will be open to the public and part will be closed to the public.

MATTERS TO BE CONSIDERED:

1. Proposed Memorandum of Understanding between the Federal Communications Commission (FCC) and EEOC concerning exchange of information and processing of discrimination charges filed against broadcasters.
2. Procedures for providing assistance in obtaining attorneys to parties who have filed charges of discrimination; Proposed Section 81 of Compliance Manual.
3. Progress report on non-model and model office performance.
4. Report on training for field managers.

Part closed to the public:

Litigation Authorization; General Counsel Recommendations; Matters closed to the public under §1612.13(a) of the Commission's regulations (42 FR 13830, March 14, 1977).

NOTE.—Any matter not discussed or concluded may be carried over to a later meeting.

CONTACT PERSON FOR MORE INFORMATION:

Marie D. Wilson, Executive Officer,
Executive Secretariat, at 202-634-6748.

This notice issued February 21, 1978.

[S-412-78 Filed 2-21-78; 2:13 pm]

[6740-02]

3

FEDERAL ENERGY REGULATORY COMMISSION.

"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT: (Published February 17, 1978, 43 FR 7082).

PREVIOUSLY ANNOUNCED TIME AND DATE OF MEETING: February 22, 1978, 10 a.m.

CHANGE IN MEETING: Addition of Item FR-10, Docket No. ES78-8, El Paso Electric Co.

KENNETH F. PLUMB,
Secretary.

[S-411-78 Filed 2-21-78; 2:13 pm]

[6720-01]

FEDERAL HOME LOAN BANK BOARD.

TIME AND DATE: At the conclusion of the open meeting to be held at 9:30 a.m., February 22, 1978.

PLACE: 1700 G Street NW., Sixth Floor, Washington, D.C.

STATUS: Closed meeting.

CONTACT PERSON FOR MORE INFORMATION:

Mr. Robert Marshall, 202-377-6679.

MATTERS TO BE CONSIDERED: Consideration of Recommendation for Designation of a Supervisory Agent—Federal Home Loan Bank of New York.

Announcement is being made at the earliest practicable time.

No. 136, February 17, 1978.

[S-402-78 Filed 2-21-78; 9:19 am]

[6730-01]

5

FEDERAL MARITIME COMMISSION.

TIME AND DATE: February 18, 1978, 10 a.m.

PLACE: Room 12126, 1100 L Street NW., Washington, D.C. 20573

STATUS: Open.

MATTERS TO BE CONSIDERED: Status of Pacific Far East Lines as holder of certificates of financial responsibility for passenger vessel operation.

CONTACT PERSON FOR MORE INFORMATION:

Francis C. Hurney, Secretary, 202-523-5727.

[S-405-78 Filed 2-21-78; 10:15 am]

[6750-01]

6

FEDERAL TRADE COMMISSION.

TIME AND DATE: 10 a.m., Tuesday, February 28, 1978.

PLACE: Room 432, Federal Trade Commission Building, 6th Street and Pennsylvania Avenue NW., Washington, D.C. 20580.

STATUS: Closed.

MATTERS TO BE CONSIDERED: The Commission has not yet scheduled any matters for discussion at this meeting. If no item is placed on the agenda by 10 a.m., on Tuesday, February 28, 1978, the meeting will automatically be cancelled. Any item that is placed on the agenda before that time will be announced in accordance with the Additional Information procedures posted with Commission Meet-

ing Notices outside Room 130 of the Federal Trade Commission Building.

CONTACT PERSON FOR MORE INFORMATION:

Wilbur T. Weaver, Office of Public Information, 202-523-3830; recorded message, 202-523-3806.

[S-408-78 Filed 2-21-78; 11:12 am]

[6750-01]

7

FEDERAL TRADE COMMISSION.

TIME AND DATE: 10 a.m., Tuesday February 28, 1978.

PLACE: Room 432, Federal Trade Commission Building, 6th Street and Pennsylvania Avenue NW., Washington, D.C. 20580.

STATUS: Open.

MATTERS TO BE CONSIDERED: Consideration of a proposed trade regulation rule regarding television advertising to children.

CONTACT PERSON FOR MORE INFORMATION:

Wilbur T. Weaver, Office of Public Information: 202-523-3830; Recorded Message: 202-523-3806.

[S-409-78 Filed 2-21-78; 11:12 am]

[7030-01]

8

INDIAN CLAIMS COMMISSION.

"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT: 43 FR 6716, February 15, 1978.

PREVIOUSLY ANNOUNCED TIME AND DATE: 10:15 a.m., February 23, 1978.

PLACE: Room 600, 1730 K Street NW., Washington, D.C.

STATUS: Open to the public.

CHANGE IN THE MEETING: The following items have been added: Dockets 250-A and 279-C, Fort Belknap and Blackfeet and Gros Ventre.

FOR MORE INFORMATION:

David H. Bigelow, Executive Director, Room 640, 1730 K Street NW., Washington, D.C. 20006, telephone: 202-653-6184.

[S-406-78 Filed 2-21-78 10:20 am]

[7030-01]

9

INDIAN CLAIMS COMMISSION.

TIME AND DATE: 10:15 a.m., March 1, 1978.

PLACE: Room 600, 1730 K Street NW., Washington, D.C.

STATUS: Open to the public:

Dockets 250-A and 279-C, Fort Belknap and Blackfeet and Gros Ventre.

Docket 300-A, Stockbridge Munsee Community.

Docket 301 (Claims 3 through 7), Oneida Nation.

FOR MORE INFORMATION:

David H. Bigelow, Executive Director, Room 640, 1730 K Street NW., Washington, D.C. 20006. Telephone 202-653-6174.

[S-407-78 Filed 2-21-78; 10:20 am]

10

BOARD OF DIRECTORS MEETING

NATIONAL RAILROAD PASSENGER CORPORATION.

In accordance with rule 4a. of Appendix A of the bylaws of the National Railroad Passenger Corporation, notice is given that the Board of Directors will meet on March 1, 1978.

A. The meeting will be held on Wednesday, March 1, 1978, in the Yorktown Room of the Hyatt Regency Hotel, 400 New Jersey Avenue, NW., Washington, D.C., beginning at 1:30 p.m. The portion of the meeting beginning at 1:30 p.m. will be closed to the public, during which time the Board will consider agenda items Nos. 1, 2, and 3, as identified below.

B. The meeting will be open to the public beginning at 3 p.m. starting with agenda item No. 4, as identified below.

C. The agenda items to be discussed at the meeting follow:

AGENDA—NATIONAL RAILROAD PASSENGER CORPORATION

MEETING OF THE BOARD OF DIRECTORS—MARCH 1, 1978

1:30—Closed Session

1. Internal personnel matters.
2. Litigation matters.
3. Fare increase strategy.

3:00—Open Session

4. Approval of minutes of regular meeting of January 25, 1978, and special meeting of February 8, 1978.
5. DOT restructuring study.
6. Commitment approval requests: 78-61—Station improvement, Little Rock, Ark.
7. President's reports:
 - A. Operations: (1) National operations, (2) Operations support, (3) Northeast corridor operations.
 - B. Marketing.
 - C. Government affairs.
 - D. Other.
8. Financial reports.
9. General fare increase.
10. Amendment to resolutions delegating voting authority.
11. Approval of 1978 board meeting dates.
12. New business.
13. Adjournment.

D. Inquiries regarding the information required to be made available pursuant to Appendix A of the Corporation's bylaws should be directed to the Corporate Secretary at 202-383-3973.

Dated: February 17, 1978.

ELYSE G. WANDER,
Corporate Secretary.

[S-404-78 Filed 2-21-78; 9:19 am]

[4910-58]

11

[NM-78-101]

NATIONAL TRANSPORTATION SAFETY BOARD.

TIME AND DATE: 2 p.m., Monday,
February 27, 1978.

PLACE: NTSB Board Room, National
Transportation Safety Board, 800 In-
dependence Avenue SW., Washington,
D.C. 20594

STATUS: Closed under Exemption 9b
of the Government in the Sunshine
Act. (A majority of the Board has
voted that this meeting may be closed
and that no earlier notice was possi-
ble.)

MATTER TO BE CONSIDERED:

Safety Effectiveness Evaluation of the
National Accident Sampling System.

CONTACT PERSON FOR MORE IN- FORMATION:

Sharon Flemming, 202-472-6022.

[S-414-78 Filed 2-21-78; 3:05 pm]

[4910-58]

12

[NM-78-111]

NATIONAL TRANSPORTATION SAFETY BOARD.

TIME AND DATE: 9:30 a.m., Thurs-
day, March 2, 1978.

PLACE: NTSB Board Room, National
Transportation Safety Board, 800 In-
dependence Avenue SW., Washington,
D.C. 20594.

STATUS: The first three items will be
open to the public; the fourth item
will be closed under Exemption 9b of
the Government in the Sunshine Act.

MATTERS TO BE CONSIDERED:

1. Railroad Special Study: A Review of Pe-
destrian Fatalities on the Nation's Rail-
roads—Phase I.

2. Letter to the Federal Aviation Adminis-
tration re proposed Airworthiness Directives
76-SW-41 and 76-SW-52.

3. Closeout of Recommendation No. A-72-
226.

4. Safety Effectiveness Evaluation of the
National Accident Sampling System.

CONTACT PERSON FOR MORE IN- FORMATION:

Sharon Flemming, 202-472-6022.

[S-415-78 Filed 2-21-78; 3:05 pm]

[7710-12]

13

BOARD OF GOVERNORS

POSTAL SERVICE.

The Board of Governors of the
United States Postal Service, pursuant
to its bylaws (39 CFR 7.5) and the
Government in the Sunshine Act (5
U.S.C. 552b), hereby gives notice that
it intends to hold a meeting at 9 a.m.
on Wednesday, March 1, 1978, in the
Benjamin Franklin Room, 11th Floor,
Postal Service Headquarters, 475 L'En-
fant Plaza SW., Washington, D.C.
20260. Except as indicated in the fol-
lowing paragraphs, the meeting is
open to the public. The Board expects
to discuss the matters stated in the
Agenda which is set forth below. Re-
quests for information about the meet-
ing should be addressed to the Secre-
tary of the Board, Louis A. Cox, at
202-245-4632.

On February 7, 1978, the Board of
Governors of the United States Postal
Service unanimously voted to close to
public observation a portion of the
March 7, 1978, meeting. (At that time
the March meeting was scheduled for
March 7, 1978. The meeting date has
been changed to March 1.) Each of the
members of the Board voted in favor
of partially closing the meeting, which
is expected to be attended by the fol-
lowing persons: Governors Wright,
Holding, Ching, Coddling, and Har-
desty; Postmaster General Ballar;
Deputy Postmaster General Bolger;
Secretary to the Board Cox; and
Senior Assistant Postmaster General
(Employee and Labor Relations)
Conway.

The portion of the meeting to be
closed will consist of a discussion of
the Postal Service's possible strategies
and positions in anticipated collective
bargaining negotiations involving par-
ties to the 1975 National Agreement
between the Postal Service and four
labor organizations representing cer-
tain postal employees, which is sched-
uled to expire in July of 1978.

AGENDA

1. Minutes of the previous meeting.

2. Remarks of the Postmaster General.

(In keeping with its consistent practice,
the Board's agenda provides this opportu-
nity for the Postmaster General to inform
the members of miscellaneous current de-
velopments concerning the Postal Service.
He might report, for example, the occur-
rence of a recent Congressional hearing,
the appointment or assignment of a key
official, or the effect on postal operations
of unusual weather or a major strike in
the transportation industry. Nothing that
requires a decision by the Board is
brought up under this item.)

3. Discussion of Postmaster General Ballar's
resignation.

(The Governors of the Postal Service
will discuss possible actions that they may

wish to take in the light of Postmaster
General Ballar's announcement of Febru-
ary 16 that he intends to resign as Post-
master General. It is possible that the
Governors may decide to take action
which may result in the appointment of a
new Postmaster General. If the Governors
should decide to discuss the possible ap-
pointment of a new Postmaster General at
the March 1 meeting, it is possible they
may wish to vote on whether to close part
or all the portion of the meeting that may
be devoted to the discussion of this sub-
ject.)

4. Discussion of strategies and positions in
collective bargaining negotiations.

(Mr. Conway, Senior Assistant Postmas-
ter General, Employee and Labor Rela-
tions Group, will discuss with the Board
possible strategies and positions in anti-
cipated collective bargaining negotiations
for a new labor agreement. As stated
above in the notice of meeting, the part of
the meeting that will be devoted to this
matter will be closed to the public.)

NOTE—As indicated above, the part of
the meeting devoted to Item 4 will be
closed to the public and some or all of
the part of the meeting devoted to Item
3 may also be closed to the public. All of
the portion of the meeting which is de-
voted to the following items will be
open. This portion of the meeting is ex-
pected to commence at 1 p.m.

5. Proposed request to Postal Rate Commis-
sion on a surcharge for nonstandard first-
class and single piece third-class mail.

(Mr. McCaffrey, Assistant Postmaster
General for Rates and Classification De-
partment, will present a proposed filing
with the Postal Rate Commission request-
ing a Recommended Decision to establish
a surcharge for first-class mail weighing
one ounce or less, and for single third-
class mail weighing two ounces or less,
which has a height to length ratio which
does not fall between 1:1.3 and 1:2.5 inclu-
sive or which exceeds 6.125 inches in
height, 11.5 inches in length, or 0.25
inches in thickness. When these size
standards were recommended by the
Rate Commission and approved by the
Governors as part of the Domestic Mail
Classification Schedule, in the spring of
1976, it was understood that a surcharge
for these categories of nonstandard mail
would not become effective for at least
two years after the date of the Commis-
sion's Recommended Decision (i.e., until
at least April 15, 1978.)

6. Capital investment projects.

a. Mr. Maevis, Assistant Postmaster Gen-
eral, Real Estate and Buildings Depart-
ment, will present a proposal to author-
ize an additional investment to complete
the rehabilitation and mechanization of
Morgan Station in New York City.

b. Mr. Maevis will present a proposal to
authorize an additional investment to
complete the rehabilitation and mecha-
nization of South Boston Postal Annex
Complex in Boston, Mass.

c. Mr. Braughton, Assistant Postmaster
General, Delivery Services Department,
will present a proposal to authorize an
investment to purchase 246 truck trac-
tors.

7. Report on employee and labor relations.

(Mr. Conway, Senior Assistant Postmas-
ter General, Employee and Labor Rela-
tions Group, will present a report on de-
velopments in postal labor relations and
matters of organizational structure.)

8. Report on proposed annual testimony to legislative committees.

(Mr. Finch, Assistant Postmaster General, Government Relations Department, will provide an account of anticipated Postal Service testimony before the cognizant Congressional Committees in the light of the requirement enacted by the Postal Reorganization Act Amendments of 1976 that the Postal Service should appear by not later than March 15 of each year before these Committees "to submit information which any such committee considers necessary to determine the amount of funds to be appropriated for the operation of the Postal Service, and to present testimony and respond to questions with respect to [the Postal Service's budget and Annual Comprehensive Statement]."

LOUIS A. Cox,
Secretary.

[S-410-78 Filed 2-21-78; 2:44 pm]

[7905-01]

14

RAILROAD RETIREMENT BOARD.

TIME AND DATE: 9:30 a.m., March 7, 1978.

PLACE: Board's meeting room on the 8th floor of its headquarters building at 844 Rush Street, Chicago, Ill.

STATUS: Part of this meeting will be open to the public. The rest of the meeting will be closed to the public.

MATTERS TO BE CONSIDERED:

Portions open to the public:

- (1) Annual comprehensive review of the Board's Actuarial Advisory Committee for calendar year 1977.
- (2) Dissemination to public through Social Security of information on reduction of Tier I portion by amount of Social Security benefit.
- (3) Retroactivity of coverage ruling relating to service performed for The Kansas City Southern Railway Co. under certain contracts with Trans-Mark Services, Inc., and Servitron, Inc.
- (4) Revised "Notice of Annuity Award" Form RL-20.

Portions closed to the public:

- (5) Appeal from referee's denial of annuity application, Frank G. Kurka.
- (6) Appeal from referee's denial of disability annuity application, Clair V. McWilliams.
- (7) Appeal of denial of waiver of recovery of overpayment, Alfred S. Ross.

CONTACT PERSON FOR MORE INFORMATION:

R. F. Butler, Secretary of the Board, Com No. 312-751-4920, FTS No. 387-4920.

[S-413-78 Filed 2-21-78; 2:44 pm]

THURSDAY, FEBRUARY 23, 1978
PART II



DEPARTMENT
OF HEALTH,
EDUCATION,
AND WELFARE

Office of Education

■

TEACHER CORPS
PROJECT

Development and Operation

Teacher Corps Project

[4110-02]

Title 45—Public Welfare

CHAPTER I—OFFICE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PART 172—TEACHER CORPS

Grants

AGENCY: Office of Education, HEW.

ACTION: Final regulation.

SUMMARY: This regulation implements Title V-A of the Higher Education Act of 1965, as amended, and governs grants to institutions of higher education, local educational agencies, and State educational agencies to develop and operate Teacher Corps projects. The purpose of Teacher Corps projects is to strengthen the educational opportunities available to children in areas having concentrations of low-income families and to encourage colleges and universities to broaden their programs of teacher preparation and to encourage institutions of higher education and local educational agencies to improve programs of training and retraining for teachers and teacher aides. This regulation clarifies the new directions established for Teacher Corps by the Education Amendments of 1976. In general this regulation reflects: (1) Increased attention to improving the school/learning climate through Teacher Corps projects, (2) emphasis on reforming the training and retraining of educational personnel through Teacher Corps projects, and (3) a greater focus on demonstration, documentation, institutionalization, and dissemination of the results of Teacher Corps projects. Major program changes which resulted from the Education Amendments of 1976 include: (1) Increasing the project length from two to five years, (2) increasing the collaboration among local educational agencies, institutions of higher education, and communities in the development and carrying out of projects, and (3) greater emphasis on local determination of project objectives and design.

EFFECTIVE DATE: Under section 431(d) of the General Education Provisions Act, as amended (20 U.S.C. 1232(d)), this regulation has been transmitted to the Congress concurrently with its publication in the FEDERAL REGISTER. Section 431(d) provides that regulations subject to that section shall become effective on the 45th day following the date of transmission to the Congress, subject to the provisions in the section concerning Congressional action and adjournment.

FOR FURTHER INFORMATION CONTACT:

Russell Wood, Deputy Director,

Teacher Corps, Office of Education, 400 Maryland Avenue SW., Washington, D.C. 20202. Telephone: 202-245-8224.

SUPPLEMENTARY INFORMATION: Section 503 of the Education Amendments of 1973 requires the Commissioner to study all rules, regulations, guidelines, or other published interpretations or orders issued by the Commissioner or the Secretary after June 30, 1965 in connection with, or affecting the administration of Office of Education programs; to report to the Committee on Labor and Public Welfare of the Senate and the Committee on Education and Labor of the House of Representatives, concerning this study; and to publish in the FEDERAL REGISTER these rules, regulations, guidelines, interpretations, and orders with an opportunity for public hearing on the matters published. This regulation reflects the results of this study as it relates to the Teacher Corps. Upon publication of Part 172, all preceding rules, regulations, guidelines and other published interpretation and orders issued in connection with or affecting the program (except for 12th cycle continuation grants) will be superseded. This regulation does not apply to 12th Cycle Teacher Corps Projects because first year grants for these projects were made for fiscal year 1977 under previously published funding criteria. Continuation grants for the second (final year) of these 12th cycle projects, which will be awarded for fiscal year 1978, are not subject to this regulation.

Overview of the program and regulation. This regulation contains rules and criteria governing grant awards by the Commissioner to institutions of higher education, local educational agencies and State educational agencies. These grants are designed to: (a) Strengthen the educational opportunities available to children in areas having concentrations of low-income families; (b) encourage colleges and universities to broaden their programs of teacher preparation; and (c) encourage institutions of higher education and local educational agencies to improve programs of training and retraining for teachers, teacher aides, and other educational personnel. Part 172 applies to all grant awards (except 12th cycle continuation grants) made after its effective date with funds appropriated to carry out the "Teacher Corps" program.

Summary of major issues. This regulation implements significant changes in the Teacher Corps program. The following changes are particularly significant and stem primarily from the Education Amendments of 1976 (Pub. L. 94-482):

(1) *Project length.* In § 172.30 of the regulation, the term of a Teacher Corps project is extended from the

present two years to the newly authorized five years. The two-year limitation was placed on projects before 1974 when they were primarily concerned with graduate level pre-service training of teacher-interns in master of arts-type projects. Section 513(a)(1) of the statute was amended to authorize a project length of five years. The newly authorized five-year project duration will give all parties concerned with a Teacher Corps project (i.e., an institution of higher education, a local educational agency and a community council) sufficient time to plan a worthwhile project, carry it out, document it, and disseminate the results.

(2) *Community council.* Section 513(e) of the statute requires the full participation of an elected community council in planning, carrying out, and evaluating a Teacher Corps project. Section 172.14(c) of the regulation permits the temporary use of a community council elected for purposes other than the Teacher Corps project (e.g., community council elected to participate in a Title I, ESEA or a bilingual education project) to serve as a Teacher Corps project council for a maximum of three months after the date of the initial grant award. Thus, § 172.14 provides for useful community contributions to early project planning, without requiring a special community election before the award of a project grant. Past experience shows that only one out of every two or three project applications is finally approved for funding. Therefore, postponing the election of a permanent community council minimizes the creation of unwarranted expectations on the part of communities that are seeking projects. At the same time, a Teacher Corps community council must be elected early in the planning year (the first year of every project) so as to participate in designing the project in collaboration with the participating local educational agency and institution of higher education.

Section 172.104 of the regulation requires that the community council for youth advocacy projects must include representation of the parents of juvenile delinquents and youth offenders who are participating in the project.

(3) *Reduction of Federal support.* Under § 172.31 of the regulation, Federal support of a Teacher Corps project is reduced during the fourth and fifth years of the project term. One persistent criticism of Federal project grant programs is that the effects rarely last after Federal project funding terminates. The reduction of Federal funding during the latter project years is designed to encourage an orderly assumption of funding responsibility by the institutions of higher education, local educational agencies, and other agencies participating in the project.

(4) *Released time compensation.* Section 514(f) of the statute permits, in limited circumstances, the use of grant funds to compensate local educational agencies, for the cost of the time educational personnel are released from their duties during the regular school day to participate in Teacher Corps project training. Under § 172.92 of the regulation, released time compensation is only paid with grant funds in cases where the continuation of the project is jeopardized without such payment. Thus, § 172.92 directly implements the intent of Congress that, "... the Commissioner will use the authority in a limited way only when he determines that a particular local educational agency is confronted with unusual financial difficulties such that the continuation of the Teacher Corps program would be jeopardized without Federal compensation. The managers further expect that compensation will be necessary for only a few days per month during the school year." (p. 204, Conference Report 94-1701, U.S. House of Representatives, September 27, 1976).

(5) *Number of teacher-interns.* Section 172.81 of the regulation requires at least four teacher-interns in each project. This continues the Teacher Corps practice of requiring teacher-interns in each project. The requirement ensures that a project will be able to integrate the pre-service training of new teachers with the inservice training of existing staff and, thus, broaden programs of teacher preparation.

However, if a participating local educational agency provides an assurance (§ 172.81) that it will employ all teacher-interns who successfully complete their internship, the project may include a ratio of up to one teacher-intern for each five teachers in the Teacher Corps project. Thus, § 172.81 responds to sec. 513(f) of the statute which requires the Teacher Corps to work toward a nationwide Teacher Corps membership ratio of approximately five teachers to each individual not yet employed as a teacher. Section 513(f) also authorizes the Commissioner to waive this goal if there is an insufficient number of qualified teacher applicants, or if there are insufficient employment opportunities for the teacher-interns.

(6) *Local development of objectives.* Section 172.61 of the regulation requires local educational agencies, institutions of higher education, and community councils to jointly establish their own local objectives. Previously published funding criteria for the Teacher Corps (see *FEDERAL REGISTER*, vol. 42, No. 1, January 3, 1977, p. 77) required a project to adopt one of five broadly defined strategies which included: (a) Establishment of training complexes including teacher centers; (b) implementing competency-based

teacher education; (c) training for implementing alternative school designs; (d) inter-disciplinary training; and (e) training for the systematic adaption of research findings. While these strategies remain useful, they are not required by the regulation. It is anticipated that the commitment of people involved in a project and the prospects of achieving lasting benefits will be enhanced by leaving much of the substance of a project to local determination.

(7) The Trust Territory of the Pacific is eligible under section 513(c)(2) of the statute for allocations of Teacher Corps members, but is not defined as a "State" in the general provisions regulations of the Office of Education. Therefore, in this regulation the Trust Territory of the Pacific is specifically included in the definition of "State."

(8) Sections 172.82(c) and 172.113(b) of the regulation urge grantees to give consideration to persons who are broadly representative of the ethnic and cultural characteristics of the community served by the project in recruiting Teacher Corps members and staff. This is consistent with Congressional intent as expressed in Senate Report No. 94-882, 94th Cong., 2nd Sess. (1976).

Summary of comments and responses. A notice of proposed rulemaking for the Teacher Corps program, inviting public comment, was published in the *FEDERAL REGISTER* on September 20, 1977, and a public hearing was held on October 5, 1977 in Washington, D.C. During the 30-day period of public comment, over 120 written suggestions and recommendations were received from interested persons and organizations. The comments were generally very favorable and supportive of the proposed regulation. The following is a summary of the comments which requested changes in, or clarification of, the regulation and responses to those comments (comments which requested changes that are not authorized by the Teacher Corps statute are not included). The comments and responses are identified with the section number of the regulation to which they refer and are presented in the numerical sequence of the regulation.

§ 172.11 INSTITUTION OF HIGHER EDUCATION

Comment. One commenter suggested that the regulation be changed to clarify that the participating institution of higher education must offer teacher preparation programs at both the elementary and secondary education level.

Response. While most projects will include teachers and teacher-interns serving in both elementary and secondary schools, some may include only one of these levels. Therefore, § 172.11

of the regulation is not changed to require that the institution of higher education offer teacher preparation at both levels.

§ 172.12 PROJECT SCHOOLS

Comment. Many commenters requested revision or clarification of § 172.12 of the regulation concerning the number of participating schools required in each Teacher Corps project and clarification of the definition of a "feeder system."

Response. Section 172.12 of the proposed regulation was ambiguous and therefore, is changed to clarify and further define project schools. Section 172.12(a) requires that each project include two to four complete schools which together include all grade levels provided by the local educational agency. In order to enhance the institutional impact of a project, the schools included in the project should be a feeder system. A feeder system is one or more schools that together include all grade levels from pre-school, through grade twelve. Furthermore, to be a feeder system the majority of pupils enrolled in the elementary school or schools must progress to the high school or to the intermediate school. If an intermediate school is included, the majority of pupils from the intermediate school must progress to the high school. However if the local educational agency does not have a feeder system as described above, the following are acceptable alternatives:

(1) A single school if that school includes grades one through twelve;

(2) More than four schools where additional schools are needed to include all grade levels in the feeder system;

(3) More than four schools where one or more schools in the feeder system employ twelve or fewer teachers; or

(4) Two to four schools in a feeder system which does not include a high school (grades eight or nine through twelve) if the high school is in a separate local educational agency.

If the alternatives do not meet local needs, the local educational agency may propose another arrangement provided that the entire educational staffs of schools serving a definable low income community are included.

§ 172.14 COMMUNITY COUNCIL

Comment. One person suggested that the regulation be changed to limit each community council to a maximum of 12 members.

Response. The maximum size of each community council is left as a local decision, so that it may best reflect local circumstances.

Comment. One commenter asked whether a local school board could serve as a Teacher Corps project community council.

Response. The statute and regulation require that a community council be elected specifically to serve as the Teacher Corps community council. However, individual members of a school board may serve on a community council specifically elected for that purpose under § 172.14(d).

Comment. Two commenters suggested that the regulation be changed to permit a Title I Elementary and Secondary Education Act council or similar council to be the permanent Teacher Corps community council.

Response. No change is made in the regulation. Section 172.14 is based on section 513(e) of the statute which requires an elected community council that is representative of the community in which the project is located and the parents of the students in the elementary or secondary schools participating in the project. A community council elected for another purpose could not serve as a permanent Teacher Corps community council unless this representation requirement is met.

Comment. One commenter questioned the feasibility of community wide elections where the attendance area of the participating schools is geographically very large.

Response. Community wide elections are required by the representation requirements in section 513(e) of the statute. After initial grant awards are made, the Teacher Corps program will provide technical assistance to the local projects concerning how to conduct community wide elections.

§ 172.15 POLICY BOARD

Comment. Some commenters stated that potential conflicts existed between the policy board and the elected local school board, because the local school board has responsibility for school policy under State law.

Response. These conflicts should not occur because a Teacher Corps project must be carried out within all established State and local laws, regulations and policies. The policy board will operate within this framework.

Comment. One commenter suggested that the regulation be changed by eliminating principals' organizations from the list of suggested representatives on the policy board. The commenter felt that principal's organizations should not be highlighted as a suggested additional group.

Response. No change is made in the regulation. Principals, who were not eligible for Teacher Corps training until the Education Amendments of 1976, are now regarded as key elements in a Teacher Corps project.

Comment. One commenter asked whether inclusion of teacher-interns on the policy board is required under § 172.15(b)(4).

Response. Section 172.15(b)(4) of the regulation was typographically inaccurate as published in the proposed regulation. The typographical error in § 172.15(b)(4) is corrected in the final regulation and teacher-interns may be included on the policy board at local option.

Comment. One commenter requested that the regulation be changed to permit the dean of the school of education to designate a substitute representative on the policy board.

Response. No change is made in the regulation. The effectiveness of the policy board depends upon the inclusion of key education decision makers, such as deans of schools of education.

§ 172.17 INVOLVEMENT OF STATE EDUCATIONAL AGENCY

Comment. One commenter suggested that the regulation be changed to specify a role for State educational agencies in project dissemination.

Response. No change is made in the regulation. While Teacher Corps endorses a State educational agency role in this function, the role is not specified in the regulation since the details of each project should be worked out at the local level in cooperation with the State educational agency. However, a State educational agency may not receive a grant under § 172.32 to disseminate project experience.

§ 172.30 PROJECT DURATION

Comment. One commenter requested that the regulation be changed to permit projects of shorter than five years' duration.

Response. The regulation is changed to permit projects shorter than five years' duration. Experience with other Federal education programs shows that five years is the optimum project length. However, if the applicant institutions and agencies can demonstrate in their applications that their objectives can be met in a shorter time, then a shorter time period may be used.

Comment. One commenter suggested that the regulation be changed by eliminating the requirement for annual applications and that funding be made automatically for years after the first year.

Response. No change is made in the regulation. Automatic continuation funding is prohibited under 31 U.S.C. 665(a). In addition, applications for continuation grants provide a necessary opportunity for review of project experience and effectiveness.

§ 172.31 SIZE OF GRANTS

Comment. Several commenters requested that the regulation be changed to increase, or provide more flexibility in the size of grants.

Response. The limitation on grant size for the initial developmental year is clarified to provide "not more than"

\$150,000. The amounts stated for the other project years are approximate limitations and local projects may apply for smaller sums. The approximate limitation for the amount awarded to a project for the last project year is increased to \$150,000. The amounts are based on past project experience and the belief that significantly larger sums would impair the demonstration aspect of the project.

Comment. One commenter suggested that the regulation be changed to base the grant size limitations on the number of individuals who participate in the project.

Response. No change is made in the regulation. The limitations in § 172.31 are intended to ensure that project costs do not become so high that the demonstration aspects of the project are jeopardized.

Comment. One commenter suggested an increase in the limitation on the total amount awarded to grantees under a project for the first project year if a State educational agency grant is included in the project.

Response. No change is made in the regulation. The limitations in § 172.31 are intended to cover all project activities regardless of the number of agencies and institutions involved and whether or not a State educational agency is a grantee.

§ 172.32 SEPARATE GRANTS

Comment. A State educational agency asked if it could set its own approval criteria and require that each application for a project in its State must include the participation of the State educational agency as a grantee.

Response. Under § 172.135 of the regulation, the State educational agency must approve all applications that are in conformance with applicable State laws, rules, and regulations and consistent with overall plans for teacher education in that State. A State educational agency may establish its own criteria for determining whether project applications, are consistent with overall State plans for teacher education, including requiring the participation of the State educational agency as a joint grantee. However, the Commissioner will not approve any application which does not conform to the Teacher Corps statute and this regulation. The State educational agency must keep in mind that, to the extent an application addresses State educational agency criteria which are inconsistent with the criteria in Subpart F of this regulation, the application would receive a lower evaluation by the Commissioner.

§ 172.33 TIME PERIOD BEFORE AGENCIES OR INSTITUTIONS MAY APPLY FOR A NEW PROJECT

Comment. Several commenters requested that the regulation be

changed to reduce the five-year moratorium between the time of project completion and application for a new Teacher Corps project.

Response. The moratorium in § 172.33 is designed to enhance the institutionalization of Teacher Corps experience by involving new institutions rather than making additional grants to institutions which have participated. However, to allow more flexibility, § 172.33 is changed to reduce the moratorium to three years.

Comment. Several commenters asked whether the moratorium in § 172.33 applies to the Teacher Corps 12th cycle grantees.

Response. The moratorium does not apply to 12th cycle grantees since they are not covered by the regulation (see explanation set forth above). Nevertheless, applications from grantees currently participating in 12th cycle projects would probably receive lower evaluations in the grant competition since there would be more limited institutional impact if Teacher Corps programs operated simultaneously or consecutively in the same institution.

§ 172.40 INITIAL DEVELOPMENTAL YEAR

Comment. One commenter suggested that the regulation be changed to reduce the developmental year to a period of three months.

Response. The regulation is changed to permit a developmental period of less than a year if the applicant can demonstrate that the full year is not needed. Experience with similar Federal programs indicates that a year is usually necessary for project development.

§ 172.42 FUNCTIONS OF EACH PARTICIPANT

Comment. One commenter suggested that the regulation be changed to provide that institutions of higher education be compensated for the cost of released time necessary for higher education staff serving in the project.

Response. No change is made in the regulation. The cost of released time for institution of higher education staff may be a legitimate part of the cost of providing training to Teacher Corps members for which institutions of higher education may be compensated.

§ 172.45 TRAINING BY INSTITUTIONS OF HIGHER EDUCATION

Comment. Two commenters requested that the regulation be changed to permit institutions of higher education to train their own instructional staff as part of the Teacher Corps project.

Response. No change is made in the regulation. The statute does not specifically authorize training of higher education personnel, as such. However,

training of higher education staff who are staff members of the Teacher Corps project is acceptable as a regular administrative function, as long as the training is for their responsibilities in the project.

Comment. One commenter asked if training for teacher aides is possible.

Response. Section 172.45(b) of the regulation permits this training.

§ 172.47 TRAINING PROGRAM FOR TEACHER INTERNS

Comment. A commenter suggested that the regulation allow more flexibility to local projects in assigning practical classroom experience for teacher-interns.

Response. Section 172.47 of the regulation already permits local flexibility in assigning teacher-interns classroom experience. However, § 172.47(c) is changed to make the one-half day school experience requirement an average over the two year internship (permitting fewer classroom hours during the first school year and more hours during the second school year).

§ 172.48 GRADUATE LEVEL TRAINING FOR TEACHERS AND TEACHER INTERNS

Comment. Several commenters requested that the regulation be changed to permit persons who do not have bachelors degrees to serve as teacher-interns and to permit these persons to receive undergraduate training. The commenters requested this change because of the unavailability of teacher-intern candidates with bachelors degrees in some localities.

Response. Teacher Corps recognizes that there may be local situations where there are not enough teacher-intern candidates with bachelors degrees. Therefore, the definition of "teacher-intern" is changed to permit a person who has completed two or more years of a program for which credit was given toward a bachelors degree to serve as a teacher-intern if there are not enough teacher-intern candidates who have a bachelors degree. If a project seeks to include persons who do not have bachelors degrees as teacher-interns, the local educational agency must provide a certification under § 172.124(f). Section 174.48 of the regulation has been changed to permit teacher-interns who do not have a bachelors degree to receive undergraduate training.

§ 172.49 DEGREE AND CERTIFICATION FOR TEACHER-INTERNS

Comment. Several commenters suggested that team leaders and teacher-interns be employed before the start of the second project year, to provide more preservice training for teacher-interns.

Response. Under § 172.40 team leaders must be hired and teacher-interns

recruited and selected during the initial developmental year. However, to provide for a preservice training period, § 172.49 is changed to require that teacher-interns begin their internships three months before the start of the second school year of the project.

Comment. One commenter suggested that advance State educational agency approval be required for the training program to assure consistency with State certification standards.

Response. No change is made in the regulation. State educational agency approval of project applications is required under § 172.135.

Comment. One commenter suggested that the regulation be changed to substantially reduce the period of time for teacher-intern training.

Response. No change is made in the regulation. The two-year training period is essential to achieve institutional change, particularly the integration of pre-service and in-service training. Another reason for the two year period is to provide teacher-interns with experience in a variety of schools and grade levels.

§ 172.60 BASIC OUTCOMES

Comment. One commenter suggested that the regulation be changed to de-emphasize basic outcomes and substitute the term "activities" in place of "outcomes."

Response. No change is made in the regulation. The four basic outcomes were developed as a result of an extensive planning process and are the structure around which the entire project must be designed.

Comment. One commenter suggested that the regulation be more specific about expected learner outcomes.

Response. No change is made in the regulation. Teacher Corps believes that the specificity of expected learner outcomes, as a result of Teacher Corps projects, is a matter for local determination.

Comment. One commenter suggested that a project not be held accountable for the adoption, or adaptation, of educational improvements by other agencies and institutions.

Response. No change is made in the regulation. A project is not held accountable for adoption of educational improvements beyond the legal jurisdiction of the grantees. This means, for example, that a local educational agency is accountable for the adoption and adaptation of educational improvements only in schools within its jurisdiction. However, each project must make efforts to demonstrate and disseminate its experience beyond local educational agency boundaries.

§ 172.62 SCHOOL OBJECTIVES

Comment. One commenter suggested that the regulation be changed to em-

phasize the coordination of school outcomes among all project schools.

Response. This suggestion is accepted and § 172.62 is changed to require that all project schools must be involved in the development of these specific objectives. This involvement of all project schools is designed to add continuity and provide greater impact at various levels of the educational system.

Comment. One commenter suggested that the regulation be changed to specifically include undergraduates in a definition of volunteer.

Response. No change is made in the regulation. Undergraduates and other persons who volunteer to serve as part-time tutors or full-time instructional assistants in project schools are volunteers under § 172.80(b) of the regulation. It should be noted that training for volunteers is limited under section 513(a)(5)(B) of the statute to "training to prepare tutors and instructional assistants for service" in Teacher Corps projects.

§ 172.81 NUMBER OF TEACHER-INTERNS

Comment. Several commenters asked for clarification of the provision in § 172.81(b) which permits each project to include up to one teacher-intern for each five teachers in the project schools if the local educational agency will employ all teacher-interns who complete their internships.

Response. Section 172.81 of the regulation is based on section 513(f) of the statute which provided that: "The Commissioner shall establish procedures seeking with respect to the Teacher Corps members enrolled after the date of enactment of the Education Amendments of 1976 a goal of having approximately 5 individuals who are at the time of enrollment, or who previously have been, employed as teachers by local education agencies to one individual who has not been so employed. The Commissioner may waive the procedure established under this subsection if he makes a determination that there are insufficient qualified applicants to maintain the goal sought by this subsection, or that there are insufficient employment opportunities for individuals who are not so employed, and submits a report to Congress of such a determination."

If the assurance required in § 172.124(e) is not given, this is evidence that there are "insufficient employment opportunities" for the teacher-interns and the requirement of four teacher-interns per project under § 172.81(a) will then apply.

Comment. One commenter suggested the regulation be changed to permit less than four teacher-interns in each project, at local option.

Response. No change is made in the regulation. A minimum number of four teacher-interns is required in

each project so that there will be sufficient opportunity for the integration of pre-service and in-service training. Past project experience has shown that four is the minimum number that constitutes an effective teacher-intern team.

§ 172.83 TEACHER-INTERN TEAMS

Comment. One commenter asked if team leaders must be employed full-time by the project.

Response. Team leaders will normally be employed by the project on a full-time basis, since they are expected to participate fully in project activities including supervising teacher-interns. However, there may be exceptional local circumstances in which this is not possible, so employment on less than a full time basis is permitted.

Comment. One commenter asked whether each team must spend a portion of the internship in each project school where there are multiple teacher-intern teams in the project.

Response. Section 172.83 of the regulation requires teacher-intern rotation so that each teacher-intern will have experience in all educational levels represented in the project schools.

§ 172.87 COMPENSATION OF TEAM LEADERS

Comment. One commenter suggested that the regulation be changed to make faculty in institutions of higher education eligible to serve as team leaders.

Response. No change is made in the regulation. Under the present language, any qualified individuals are eligible and may be hired by the local educational agency as team leaders.

§ 172.88 TEACHER-INTERN COMPENSATION DURING THEIR TERM OF SERVICE WITH THE PROJECT

Comment. One commenter suggested that the regulation be changed to limit the total compensation paid to teacher-interns to the salary of a beginning teacher.

Response. In order to recognize locally established salary policy, § 172.88 is changed to limit total teacher-intern compensation (including stipend and dependent allowance) to not exceed the salary of a full-time beginning teacher.

Comment. Several commenters requested clarification of the responsibility for paying stipends and compensation to the teacher-interns.

Response. It is intended that teacher-interns receive continuous stipend payment or compensation from the time of entry into the project to the time of completion of the internship. The stipend must be paid during both summers during the internship.

Comment. One commenter asked if the local educational agency's contri-

bution (10%) to teacher-intern compensation under § 172.88 may be "in kind" rather than in money.

Response. It is the intent of § 172.88 that teacher-interns be compensated in money. This has been the continuing policy of Teacher Corps.

§ 172.90 TEACHER-INTERN AND TEAM LEADER MEDICAL INSURANCE

Comment. One commenter asked whether teacher-interns and team leaders should receive fringe benefits in addition to medical insurance.

Response. No change is made in the regulation. In order to recognize locally established policies and circumstances, this is left for determination at the local level.

§ 172.91 TRAINING STIPENDS FOR TEACHERS AND OTHER EDUCATIONAL PERSONNEL

Comment. One commenter suggested that the decision of whether to pay training stipends to teachers and other educational personnel (as well as the size of such stipends if paid) be left to local option.

Response. This suggestion is adopted. Section 172.91 of the regulation is changed to permit, rather than require, the payment of these stipends and the upper limit is set at \$100 per individual per week. Thus, local projects have more flexibility to recognize local needs and priorities.

§ 172.92 RELEASED TIME FOR EDUCATIONAL PERSONNEL

Comment. One commenter asked that the regulation be changed to assure applicants that project applications will not be penalized for requesting funds for released time.

Response. Under the evaluation criteria in Subpart F, no application will be penalized merely for proposing that a portion of grant funds be used for released time if such use is fully justified in the application. However, in reviewing applications the Commissioner considers whether the activities are likely to accomplish the project objectives. An application which proposes to use a large amount of its budget for the costs of released time, may not have activities adequate to achieve its objectives, and therefore might not score as well under the criteria in Subpart F.

Comment. One commenter requested clarification of the term "jeopardy" as used in § 172.92(b) of the regulation.

Response. The term jeopardy was used in the Conference Report on the Education Amendments of 1976 cited above. It was the intent of Congress that grant funds should be used to pay for released time only in extremely limited circumstances, where the project is unlikely to succeed without that payment.

§ 172.93 COMPENSATION OF VOLUNTEERS

Comment. One commenter suggested that volunteers be paid stipends for participation in summer training.

Response. No change is made in the regulation. In order to reflect local circumstances, § 172.93 provides that volunteers may be paid or not paid according to local policy.

§ 172.94 TRAVEL EXPENSES OF TEACHER CORPS MEMBERS

Comment. One commenter suggested that the regulation be changed to permit travel and transportation payments only to teacher-interns rather than all Teacher Corps members.

Response. No change is made in the regulation. Travel expenses for any Teacher Corps members, including regular teachers, may be necessary.

Comment. One commenter suggested reducing the 11,000 pound restriction under § 172.94(b)(2)(ii) to 6,000 pounds.

Response. This suggestion is not adopted since the 11,000 pound allowance is used in similar Federal programs.

§ 172.102 YOUTH ADVOCACY PROJECT JOINT PARTICIPATION

Comment. One commenter asked whether a traditional penal institution must be part of a youth advocacy project.

Response. A project is not required to include an incarceration institution. Section 172.102(b)(4) of the regulation indicates that one, or more, of four types of correctional facilities must be part of a youth advocacy project.

Comment. Two commenters suggested including State educational agencies as eligible participants in youth advocacy projects.

Response. State educational agency participation is authorized by the statute and the suggestion is adopted. Section 172.102 of the regulation is changed to permit State educational agencies to participate in youth advocacy projects.

Comment. One commenter asked whether a regular Teacher Corps project may be combined with a youth advocacy project, and if this is permissible whether the funding limitation is increased.

Response. A regular Teacher Corps project cannot be combined with a youth advocacy project. Under the regulation, a youth advocacy project must contain most of the same elements as a regular Teacher Corps project and therefore combination with a regular project is unnecessary.

§ 172.104 YOUTH ADVOCACY PROJECT COMMUNITY COUNCIL

Comment. One commenter asked if the community council must be repre-

sentative of both parents and residents in youth advocacy projects.

Response. Under § 172.104 of the regulation, procedures must be developed at the local level for an election that includes both the parents of the youths participating in the project and the residents of the area served by the project schools.

§ 172.108 CORRECTIONAL FACILITY FUNCTIONS

Comment. One commenter asked what purpose grants to correctional institutions may serve in youth advocacy projects.

Response. The functions of a participating correctional facility are described in § 172.108

§ 172.110 MANAGEMENT PLAN

Comment. One commenter asked how much detail is required in the management plan required in the initial project application.

Response. The management plan must address all project years, although the activities and objectives may change as a result of project experience. The proposed budget for all project years, except the first year, may be in locally determined outline form.

Comment. One commenter suggested that the regulation be changed to describe which indirect costs grantees may be compensated for.

Response. No change is made in the regulation because indirect costs are covered by the applicable cost principles referenced in 45 CFR 100a.81.

Comment. One commenter suggested the establishment of a Teacher Corps management plan on a national level.

Response. A national management plan for the Teacher Corps is being developed as a result of detailed planning processes now in progress. However, this plan is part of national program management and not appropriately covered in the regulation.

Comment. One commenter suggested that the regulation be changed to specify a set amount for the secretarial and administrative expenses of the community council.

Response. No change is made in the regulation. So that these expenses can reflect the needs of each project, Teacher Corps chooses not to specify a set amount. However, the secretarial and administrative expenses of the community council, which may include training expenses for the council members themselves, must be a distinctly identifiable category in the project budget required under § 172.110.

§ 172.113 EMPLOYMENT OF PROJECT ADMINISTRATIVE STAFF

Comment. One commenter asked that equal treatment of the sexes be required under § 172.113.

Response. This is not covered by the regulation. Title IX of the Education Amendments of 1972 (20 U.S.C. 1681) prohibits sex discrimination in any education program or activity receiving Federal financial assistance and every applicant must file an assurance of compliance.

Comment. One commenter asked that the regulation be changed to specify that project staff in addition to the director, may be hired during the initial project year.

Response. No change is made in the regulation. Specific designation of project staff is not included in the regulation. Local projects may hire staff as appropriate for the functions to be carried out in the initial project year.

§ 172.125 COMMUNITY COUNCIL

Comment. One commenter suggested that the regulation be changed to require more specificity in the assurance concerning the role of the community council.

Response. No change is made in the regulation. The language in § 172.125(c) of the regulation is based on section 513(e) of the statute. So that local circumstances and situations can be reflected, additional details are left to local determination.

Comment. One commenter suggested that the regulation be changed to clarify how an applicant should describe the community council.

Response. No change is made in the regulation. The initial project application can describe the permanent community council in prospective terms and not as much detail is expected in the initial application as in the second year application.

(UNNUMBERED) TRAINING, COMMUNITY COUNCIL EXPENSES

Comment. One commenter asked whether a separate budget for the community council's secretarial and administrative expenses must be included in the project application.

Response. A separate budget for the secretarial and administrative expenses of the community council is required.

§ 172.135 APPROVAL OF APPLICATIONS BY THE STATE EDUCATIONAL AGENCY

Comment. One commenter suggested that the regulation be changed to specify a 15 day period for State educational agency approval of applications.

Response. No change is made in the regulation. The length of the approval period is left to State educational agency determination. However, it should be noted that the more time a State educational agency requires, the less time applicants will have for project application development, which could affect their ability to compete successfully for a project.

RULES AND REGULATIONS

Comment. One commenter suggested that the regulation be changed to be more specific about requiring competency-based teacher training and similar approaches.

Response. No change is made in the regulation. So that each project may reflect local circumstances, much of the substance and approaches of the Teacher Corps training is left to local discretion.

CITATIONS OF LEGAL AUTHORITY

As required by section 431(a) of the General Education Provisions Act (20 U.S.C. 1232(a)), a citation of statutory authority for each section of the regulation has been placed in parentheses on the line following the text of the section. Reference to "Sec." in the citations of authority following provisions of the regulation refer to sections of the Higher Education Act of 1965, as amended.

Authority. This regulation is issued under the authority of Title V-A of the Higher Education Act of 1965 (Pub. L. 89-329), as amended by Pub. L. 90-35, Pub. L. 90-575, Pub. L. 91-230, Pub. L. 92-318, Pub. L. 93-380, and Pub. L. 94-482.

(20 U.S.C. 1101 et seq.)

NOTE.—The Office of Education has determined that this document does not contain a major proposal requiring preparation of an Inflation Impact Statement under Executive Order 11621 and OMB Circular A-107.

(Catalog of Federal Domestic Assistance No. 13.489, Teacher Corps).

Dated: December 13, 1977.

ERNEST L. BOYER,
U.S. Commissioner of Education.

Approved: February 13, 1978.

JOSEPH A. CALIFANO, JR.,
Secretary of Health,
Education, and Welfare.

Title 45 of the Code of Federal Regulations is amended by adding a new Part 172 to read as follows:

PART 172—TEACHER CORPS

Subpart A—General

Sec.

- 172.1 Scope.
- 172.2 Purpose.
- 172.3 Definitions.

Subpart B—Elements of a Teacher Corps Project

PARTICIPANTS

- 172.10 Joint participants.
- 172.11 Institution of higher education.
- 172.12 Project schools.
- 172.13 Involvement of all educational school personnel in the project.
- 172.14 Community council.
- 172.15 Policy board.
- 172.16 Other participating groups.
- 172.17 Involvement of State educational agency.

GRANTS

- 172.30 Project duration.
- 172.31 Size of grants.
- 172.32 Separate grants.
- 172.33 Time period before agencies or institutions may apply for a new project.

PROJECT PROGRAM

- 172.40 Initial development year.
- 172.41 Achievement of objections during the remaining four years.
- 172.42 Functions of each participant.
- 172.43 Institution of higher education functions.
- 172.44 Local educational agency functions.
- 172.45 Training by institutions of higher education.
- 172.46 Pre-service and in-service training.
- 172.47 Training program for teacher-interns.
- 172.48 Graduate level training for teachers and teacher-interns.
- 172.49 Degree and certification for teacher-interns.
- 172.50 Field and community based training.
- 172.51 Training for volunteers.
- 172.52 Documentation of project experience.

BASIC OUTCOMES AND PROJECT OBJECTIVES

- 172.60 Basic outcomes.
- 172.61 Project objectives.
- 172.62 School objectives.
- 172.63 Educational personnel development system objectives.
- 172.64 Institutionalization objectives.
- 172.65 Demonstration and dissemination objectives.

TEACHER CORPS MEMBERS

- 172.80 Educational personnel, teacher-interns, and volunteers.
- 172.81 Number of teacher-interns.
- 172.82 Recruiting teacher-interns.
- 172.83 Teacher-interns teams.
- 172.84 Teacher-interns may not replace teachers.
- 172.85 Federal employees.
- 172.86 Other Federal student assistance programs.
- 172.87 Compensation of team leaders.
- 172.88 Teacher-interns compensation during their term of service with the project.
- 172.89 Teacher-interns training stipends.
- 172.90 Teacher-interns and team leader medical insurance.
- 172.91 Training stipends for teachers and other educational personnel.
- 172.92 Released time for educational personnel.
- 172.93 Compensation of volunteers.
- 172.94 Travel expenses of Teacher Corps members.

Subpart C—Youth Advocacy Projects

- 172.100 Purpose and project design.
- 172.101 Other sections in this part apply to youth advocacy projects.
- 172.102 Youth advocacy project joint participation.
- 172.103 Project schools.
- 172.104 Youth advocacy project community council.
- 172.105 Policy board.
- 172.106 Youth advocacy projects—separate grants.
- 172.107 Time period before correctional facility may apply for a new project.
- 172.108 Correctional facility functions.
- 172.109 Youth advocacy teacher-intern training.

Subpart D—Project Administration

- 172.110 Management Plan.
- 172.111 Project director.
- 172.112 Compensation of project director and staff.
- 172.113 Employment of project administrative staff.
- 172.114 Supervision of Teacher Corps members.

Subpart E—Applications

- 172.122 Policy board.
- 172.123 Institution of higher education.
- 172.124 Project schools.
- 172.125 Community council.
- 172.126 Correctional facility.
- 172.127 Project objectives.
- 172.128 Management and staffing plans.
- 172.130 Released time.
- 172.132 Project activities.
- 172.133 Youth advocacy projects.
- 172.134 Information responding to evaluation criteria.
- 172.135 Approval of applications by the State educational agency.
- 172.136 Continuation grant application.
- 172.137 Annual publication of application submission date.

Subpart F—Evaluation Criteria

- 172.150 Evaluation procedure.
- 172.151 School learning climate criterion.
- 172.152 Educational personnel development system criterion.
- 172.153 Institutionalization criterion.
- 172.154 Adaptation of educational improvements criterion.

APPENDIX—PART A OF TITLE V OF THE HIGHER EDUCATION ACT OF 1965, AS AMENDED—TEACHER CORPS PROGRAM STATEMENT OF PURPOSE AND AUTHORIZATION OF APPROPRIATIONS

AUTHORITY: Title V-A of the Higher Education Act of 1965 (Pub. L. 89-329), as amended by Pub. L. 90-35 in 1967; Pub. L. 90-575 in 1968; Pub. L. 91-230 in 1970; Pub. L. 92-318 in 1972; Pub. L. 93-380 in 1974; and Pub. L. 94-482 in 1976 (20 U.S.C. 1101 et seq.), unless otherwise noted.

Subpart A—General

§ 172.1 Scope

(a) This regulation applies to the Teacher Corps program. The statute that applies to the Teacher Corps program is Title V-A of the Higher Education Act of 1965, as amended. A copy of the statute is included as an appendix to this part.

(b) Each grant under this part is subject to the general provisions regulations of the Office of Education (Parts 100 and 100a of this chapter). (Secs. 511 et seq.; 20 U.S.C. 1101 et seq.)

§ 172.2 Purpose.

The purpose of the Teacher Corps program is to strengthen the educational opportunities available to children in areas having concentrations of low income families, to encourage colleges and universities to broaden their programs of teacher preparation, and to encourage institutions of higher education and local educational agen-

cies to improve programs of training and retraining for teachers, teacher aides, and other educational personnel.

(Secs. 511(a); 20 U.S.C. 1101(a).)

§ 172.3 Definitions.

As used in this part: "Institution of higher education" means an institution of higher education as defined in Section 1201(a) of the Higher Education Act of 1965, as amended.

(Secs. 1201(a); 20 U.S.C. 1141(a).)

"Local educational agency" means a local educational agency as defined in section 1201(g) of the Higher Education Act of 1965, as amended. The term includes a State educational agency or other public or private non-profit agency which provides a program or project designed to meet the special educational needs of migratory children of migratory agricultural workers.

(Sec. 1201(g); 20 U.S.C. 1141(g); Secs. 517A; 20 U.S.C. 1107a.)

"Low-income family" means a family with a child whom the local educational agency may count under Section 103 of Title I of the Elementary and Secondary Education Act of 1965, as amended.

(Sec. 513(a)(3); 20 U.S.C. 1103(a)(3).)

"Other educational personnel" means administrators, supervisors, and other specialized educational personnel.

(Sec. 513(a)(1); 20 U.S.C. 1103(a)(1).)

"State" means the several States of the Union, the Commonwealth of Puerto Rico, the District of Columbia, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands.

(Sec. 513(c)(2); 20 U.S.C. 1103(c)(2); Sec. 1201(b); 20 U.S.C. 1141(b).)

"State educational agency" means the State board of education or other agency or officer primarily responsible for the State supervision of public elementary and secondary schools, or, if there is no such officer or agency, an officer or agency designated by the Governor or by State law.

(Sec. 1201(h); 20 U.S.C. 1141(h).)

"Teacher" means a person who has a teaching certificate valid in the State in which the Teacher Corps project is located, and who has had full-time paid teaching experience.

(Sec. 513(a)(1); 20 U.S.C. 1103(a)(1).)

"Teacher aide" means a person employed as a paraprofessional in a school or correctional facility who assists a teacher in performing educational duties. The term does not include teacher-interns or non-educational personnel. State and local rules

determine whether certification is required for a teacher aide.

(Sec. 513(a)(1); 20 U.S.C. 1103(a)(1).)

"Teacher-intern" means a person recruited to serve in a Teacher Corps project who has a bachelors degree or its equivalent, with or without a teaching certificate, but who has not had fulltime paid teaching experience. However, a person who has completed two or more years of a program for which credit was given toward a bachelors degree may serve as a teacher-intern if there are not enough teacher-interns candidates who have a bachelors degree.

(Sec. 513(a)(1); 20 U.S.C. 1103(a)(1).)

Subpart B—Elements of a Teacher Corps Project

PARTICIPANTS

§ 172.10 Joint Participants.

(a) Each project must be carried out jointly by:

- (1) One or more institutions of higher education;
- (2) One or more local educational agencies; and
- (3) A community council established under § 172.14.

(b) A project may also include participation by a State educational agency. The State educational agency may participate by providing training to the Teacher Corps members.

(c) The institutions, agencies and community council which participate in a project shall collaborate in planning, carrying out, and evaluating the project.

(Sec. 513 (a), (e), (g); 20 U.S.C. 1103 (a), (e), (g).)

§ 172.11 Institution of higher education.

Each project must include at least one institution of higher education which offers academic course work at the graduate level leading to a graduate degree in the field of education, unless none of the teacher-interns has a bachelors degree.

(Sec. 513(a)(2), (b); 20 U.S.C. 1103 (a)(2), (b).)

§ 172.12 Project schools.

(a) Each project must include two to four complete schools which together include all grade levels provided by the local educational agency. This must include at least grades one through twelve. The schools selected must be a feeder system. This means that a majority of pupils enrolled in the elementary school progress to the high school or to the intermediate school, if an intermediate school is included, and that a majority of pupils from the intermediate school progress to the high school. If the applicant local educational agency does not have

a feeder system as described in this paragraph, the following are acceptable alternatives.

(1) A single school if that school includes grades one through twelve; or

(2) More than four schools where additional schools are needed to include all grade levels in the feeder system; or

(3) More than four schools where one or more schools in the feeder system employ twelve or fewer teachers; or

(4) Two to four schools in a feeder system which does not include a high school (grades eight or nine through twelve) if the high school is in a separate local educational agency.

(b) If the alternatives in (a) do not meet the needs of the applicant local educational agency, it may propose another arrangement provided that the entire educational staffs of schools serving a definable low income community are included.

(c) Each school included in the project which includes elementary grades must be eligible for a project under Title I of the Elementary and Secondary Education Act of 1965.

(Sec. 513(a)(3); 20 U.S.C. 1103(a)(3).)

§ 172.13 Involvement of all educational school personnel in the project.

All educational personnel employed by a project school must be involved in planning and carrying out the project in that school.

(Sec. 513(a)(3); 20 U.S.C. 1103(a)(3).)

§ 172.14 Community council.

(a) Each project must include an elected community council of at least seven members.

(b) The community council must be representative of:

- (1) Parents of the children attending the project schools; and
- (2) Other residents of the areas served by the project schools.

(c) An existing elected council which is broadly representative of the community in which the project is located may serve as the community council under this part for up to three months after the date of the initial grant award.

(d) A community-wide election must be held to elect a community council for the project within the three months after the date of the initial grant award (community-wide means within the attendance boundaries of the project schools).

(Sec. 513 (e)(1), (g); 20 U.S.C. 1103 (e)(1)(g).)

§ 172.15 Policy board.

(a) Each project must be planned and operated under the supervision of a policy board.

(b) The policy board must include the following members:

(1) The dean of the school of education, or other component that offers graduate training, in the institution of higher education;

(2) The superintendent of the local educational agency; and

(3) The chairperson of the community council.

(c) The policy board members listed in paragraph (b) of this section may agree to add members to the board who represent:

(1) Organizations which represent teachers in the local educational agency;

(2) Organizations which represent principals in the local educational agency;

(3) Students;

(4) Teacher-interns; or

(5) Other persons or organizations which the three board members determine would be appropriate.

(d) Each policy board decides its own voting procedures.

(Sec. 513 (a), (e), (g); 20 U.S.C. 1103 (a), (e), (g).)

§ 172.16 Other participating groups.

A project may include the participation of other groups, such as teacher organizations, professional associations, students, and teacher-interns.

(Sec. 513 (a), (g); 20 U.S.C. 1103 (a), (g).)

§ 172.17 Involvement of State educational agency.

(a) The State educational agency must be kept informed of the progress and experience of the project, including

(b) Project matters which would contribute to the improvement of State teacher certification requirements.

(Sec. 512(a) (2), (3), (5); 20 U.S.C. 1103(a) (2), (3), (5).)

GRANTS

§ 172.30 Project duration.

(a) Each application must be for up to a five year project duration. The Commissioner awards separate grants for each of those five years, subject to the availability of funds and continued effectiveness of the project.

(b) The Commissioner's assistance to a project may not continue after the fifth year.

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.31 Size of grants.

The total amount which the Commissioner awards to the grantees under a project is limited to:

(a) Not more than \$150,000 for the first year;

(b) Approximately \$300,000 for each of the second and third years if the project is for five years;

(c) Approximately \$200,000 for the next to last year; and

(d) Approximately \$150,000 for the last year:

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.32 Separate grants.

(a) If an application is selected for assistance under this part the Commissioner awards a grant to the institution of higher education and a grant to the local educational agency. If a State educational agency participates in a project under § 172.10(b), the Commissioner awards a separate grant to the State educational agency.

(b) If the application includes more than one institution of higher education or more than one local educational agency the Commissioner may award a grant to one or more of those institutions or agencies.

(Sec. 513 (a), (g); 20 U.S.C. 1103 (a), (g).)

§ 172.33 Time period before agencies or institutions may apply for a new project.

If an institution of higher education or a local educational agency participates in a project it may not apply for a new project until three years after the end of that participation. If a local educational agency is subdivided into districts, this restriction applies only to the district within the local educational agency which participates in the project.

(Sec. 513(g); 20 U.S.C. 1103(g).)

PROJECT PROGRAM

§ 172.40 Initial developmental year.

During the first year of a project:

(a) The project must be developed and organized;

(b) The community council must be elected;

(c) The team leader must be hired;

(d) The teacher-interns must be recruited; and

(e) Any revisions of the objectives adopted under §§ 172.61-172.65 must be planned and developed.

This period may be less than a year if these functions can be completed in a shorter time.

§ 172.41 Achievement of objectives during the remaining four years.

(a) During the remaining four years of a project, activities must be carried out which are designed to achieve the objectives adopted under §§ 172.61-172.66.

(b) Activities during this period must consist primarily of training.

(Sec. 513 (a)(1), (g); 20 U.S.C. 1103 (a)(1), (g).)

§ 172.42 Functions of each participant.

The applicants must agree to the functions each will perform, subject to §§ 172.43-172.45.

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.43 Institution of higher education functions.

An institution of higher education may perform the following functions under its grant:

(a) Recruiting, selecting, and enrolling Teacher Corps members.

(b) Training Teacher Corps members.

(c) Paying the administrative and secretarial costs of the community council.

(d) Paying the costs of project administration, including planning, documentation, evaluation, and dissemination.

(Sec. 513 (a), (e); 20 U.S.C. 1103 (a), (e).)

§ 172.44 Local educational agency functions.

A local educational agency may perform the following functions under its grant:

(a) Recruiting, selecting and enrolling Teacher Corps members.

(b) Training Teacher Corps members.

(c) Paying the compensation of Teacher Corps members.

(d) Paying the compensation for released time for educational personnel while in training, within the limitations in § 172.92.

(e) Paying the administrative and secretarial costs of the community council.

(f) Paying the costs of project administration, including planning, documentation, evaluation, and dissemination.

(Sec. 513 (a), (e); 20 U.S.C. 1103 (a), (e); Sec. 541(f); 20 U.S.C. 1104(f).)

§ 172.45 Training by institutions of higher education.

(a) Each institution of higher education which receives a grant under this part shall provide training to Teacher Corps members. This must include training designed to achieve the objectives adopted under § 172.62(b) (improvement of competency of educational personnel).

(b) An institution of higher education which does not offer academic course-work beyond the bachelor's degree level may provide training for volunteers and teacher aides, if this type of training is designed to achieve the objectives adopted under § 172.62.

(Sec. 513 (a)(2), (5), (b), (g); 20 U.S.C. 1103(a) (2), (5), (b), (g).)

§ 172.46 Pre-service and in-service training.

Training under this part must include pre-service training for teacher-interns and in-service training for other educational personnel employed by the project schools.

(Sec. 513(a)(2); 20 U.S.C. 1103(a)(2).)

§ 172.47 Training program for teacher-interns.

(a) The training program for a teacher-intern must be developed by the project director in consultation with the team leader and the institution of higher education which provides the training.

(b) The training must include:

- (1) Practical classroom experience in each of the project schools;
- (2) Academic study; and
- (3) Practical experiences and training in the community served by the project.

(c) The practical classroom experience of a teacher-intern may not average more than one half of each school day during the period of his or her internship.

(d) Training may also be provided in a pre-school early childhood setting if that training is consistent with the objectives adopted under §§ 172.61-172.65.

(Sec. 513(a)(2), (g); 20 U.S.C. 1103(a)(2), (g).)

§ 172.48 Graduate Level training for teachers and teacher-interns.

Training for teachers and teacher-interns who have a bachelor's degree must be at the graduate level. Training for teacher-interns who do not have a bachelor's degree may be at the undergraduate level.

(Sec. 513(a) (1), (b), (g); 20 U.S.C. 1103(a) (1), (b), (g).)

§ 172.49 Degree and certification for teacher-interns.

Training must be designed so that a teacher-intern begins his or her internship three months before the beginning of the second school year of the project and has the opportunity to complete the internship, and receive a degree and a teaching certification by the end of the third school year of the project.

(Sec. 513(a) (2), (b); 20 U.S.C. 1103(a) (2), (b).)

§ 172.50 Field and community based training.

Training of Teacher Corps members must be primarily field based and carried out in the community served by the project.

(Sec. 513(a)(2); 20 U.S.C. 1103(a)(2).)

§ 172.51 Training for volunteers.

A grantee may provide training to volunteers to prepare them for service in the project.

(Sec. 513 (a)(5), (b); 20 U.S.C. 1103(a)(5), (b).)

§ 172.52 Documentation of project experience.

(a) Each project must include documentation of all significant factors which influence project experience and results, including:

(1) The characteristics and condition of the local setting; and

(2) The usefulness of project processes, practices, and products in the project schools.

(b) The documentation under paragraph (a) of this section must be used to:

- (1) Review progress in accomplishing the objectives developed under §§ 172.61-172.65; and
- (2) Revise those objectives if necessary.

(Sec. 511; 20 U.S.C. 1101; Sec. 513(g); 20 U.S.C. 1103(g).)

BASIC OUTCOMES AND PROJECT OBJECTIVES

§ 172.60 Basic outcomes.

Each project must be designed to achieve the following outcomes:

(a) An improved school climate which fosters the learning of children of low-income families.

(b) An improved educational personnel development system for persons who serve or who are preparing to serve in schools for children of low-income families.

(c) The continuation of educational improvements (including products, processes, and practices) made as a result of the project, after Federal funding ends.

(d) The adoption or adaptation of those educational improvements by other educational agencies and institutions.

(Sec. 511; 20 U.S.C. 1101; Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.61 Project objectives.

(a) Each project must include objectives which are designed to achieve the outcomes described in § 172.60.

(b) These project objectives must be developed jointly by the institution of higher education, the local educational agency, and the community council.

(c) Each project objective must be adopted by the policy board.

(Sec. 511; 20 U.S.C. 1101; Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.62 School objectives.

(a) Each project must include specific objectives designed to achieve the outcome under § 172.60(a) (improved school climate) in each of the project schools. These objectives may include curriculum, organizational, or other changes that affect an entire school. All project schools must jointly participate in the development of these specific objectives.

(b) In addition to the objectives under paragraph (a) of this section, each project school must have objectives designed to:

- (1) Improve the competency of all educational personnel employed by the project schools (and the teacher-

interns) to provide education that is multicultural and to be knowledgeable of and sensitive to the needs of diverse cultures, regardless of the pupil population served by the project;

(2) Improve the competency of these educational personnel, the teacher interns, and the project schools, to deal with a wide range of variability in children; and

(3) Provide all educational personnel employed by the project schools (and the teacher-interns) with the opportunity to improve their competency to identify children with learning and behavioral problems, diagnose the special needs of those children, and prescribe learning activities to meet those needs.

(Sec. 511(a); 20 U.S.C. 1101(a); Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.63 Educational personnel development system objectives.

Each project must include specific objectives designed to achieve the outcome under § 172.60(b) (improved educational personnel development system), including objectives to achieve:

(a) Basic and systemic improvements in the methods used by the institution of higher education and the local educational agency to train educational personnel;

(b) The development of the capacity of the institution of higher education to provide training that will achieve the objectives under § 172.63(b); and

(c) Provision of pre-service and in-service training as an integral process.

(Sec. 511(a) 20 U.S.C. 1101(a); sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.64 Institutionalization objectives.

Each project must include specific objectives designed to achieve the outcome under § 172.60(c) (continuation of educational improvements).

(Sec. 511(a); 20 U.S.C. 1101(a); sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.65 Demonstration and dissemination objectives.

Each project must include specific objectives designed to achieve the outcome under § 172.60(d) (adaptation of educational improvements by other agencies) by demonstrating and disseminating project processes, practices, and products found useful in the project schools to:

(a) Persons involved in the project;

(b) Schools of the local educational agency and components of the institution of higher education which are not involved in the project;

(c) Other local educational agencies, institutions of higher education, and communities; and

(d) Others interested in educational policy.

(Sec. 511(a); 20 U.S.C. 1101(a); sec., 513(g); 20 U.S.C. 1103(g).)

TEACHER CORPS MEMBERS

§ 172.80 Educational personnel, teacher-interns, and volunteers.

The following persons are Teacher Corps members:

- (a) Teachers and other educational personnel who are employed by a project school;
- (b) Volunteers who serve as part-time tutors of full-time instructional assistants in project schools; and
- (c) Teacher-interns.

(Sec. 513(a)(1); 20 U.S.C. 1103(a)(1).)

§ 172.81 Number of teacher-interns.

- (a) Each project must include at least four teacher-interns.
- (b) Each project may include up to one teacher-intern for each five teachers in the project schools if the local educational agency will employ all teacher-interns who complete their internships.

(Sec. 513(f); 20 U.S.C. 1103(g).)

§ 172.82 Recruiting teacher-interns.

(a) The Commissioner provides each grantee with a national listing of qualified applicants for teacher-internships.

(b) A grantee may recruit teacher-interns from the national listing of qualified applicants, but is not required to do so.

(c) A grantee must design its recruitment of teacher-interns so that it gives consideration to persons who are broadly representative of the ethnic and cultural characteristics of the community served by the project.

(d) The Commissioner publishes a notice annually in the FEDERAL REGISTER that explains how to apply for teacher-internships.

(Sec. 513(a)(1), (3); 20 U.S.C. 1103(a)(1), (3).)

§ 172.83 Teacher-intern teams.

Teacher-interns must be organized into teams that include at least four teacher-interns and one experienced teacher who serves as leader of the team. Each team must spend a portion of the internship in each project school.

(Sec. 513(a)(3); 20 U.S.C. 1103(a)(3).)

§ 172.84 Teacher-interns may not replace teachers.

(a) A grantee may not use a teacher-intern to replace, or carry out the functions of a teacher who is or would otherwise have been employed in a project school.

(b) A teacher-intern may not be used as a substitute teacher.

(Sec. 517; 20 U.S.C. 1107.)

§ 172.85 Federal employees.

Members of the Teacher Corps are not considered Federal employees

except for the purposes of the Federal tort claims provisions of Title 28 of the United States Code.

(Sec. 515 (a)-(c); 20 U.S.C. 1104 (a)-(c).)

§ 172.86 Other Federal student assistance programs.

Members of the Teacher Corps may not receive a loan under the National Direct Student Loan Program authorized by Title IV-E of the Higher Education Act of 1965 (20 U.S.C. 1087-aa-1087-ff), or a grant under the Supplemental Educational Opportunity Grant Program authorized by Title IV-A-2 of the Higher Education Act of 1965 (20 U.S.C. 1070b-1070b-3).

(Sec. 515(d)-20 U.S.C. 1105 (d).)

§ 172.87 Compensation of team leaders.

(a) The local educational agency shall employ each teacher-intern team leader.

(b) The local educational agency shall compensate a team leader at a rate comparable to that being paid to other personnel in the same agency who perform similar work.

(c) A local educational agency shall use funds under its grant to pay up to 90 percent of the compensation paid under paragraph (b) of this section.

(Sec. 513(a)(3); 20 U.S.C. 1103(a)(3); sec. 514(a)(1); 20 U.S.C. 1104(a)(1).)

§ 172.88 Teacher-intern compensation during their term of service with the project.

(a) The local educational agency shall compensate a teacher-intern during each period he or she serves in the project schools at a rate of \$150 per week, subject to paragraph (c) of this section.

(b) This compensation must include an additional \$15 per week for each dependent who receives more than half of his or her support from the teacher-intern, subject to paragraph (c) of this section.

(c) The total compensation paid to a teacher-intern under paragraphs (a) and (b) of this section may not exceed the compensation paid to a beginning teacher employed by the local educational agency for comparable periods of time.

(d) A local educational agency shall use funds under its grant to pay up to 90 percent of the compensation paid under this section.

(Sec. 513(a)(3); 20 U.S.C. 1103(a)(3); sec. 514(a)(2); 20 U.S.C. 1104(a)(2).)

§ 172.89 Teacher-intern training stipends.

(a) The institution of higher education shall pay a training stipend at \$150 per week to each teacher-intern during each period he or she receives training at that institution. The institution of higher education may not

pay this stipend during the periods when the teacher-intern serves in the project schools.

(b) The training stipend must include an additional \$15 per week for each dependent who receives more than one-half of his or her support from the teacher-intern.

(c) An institution of higher education shall use funds under its grant to pay up to 100 percent of the cost of the amounts paid under paragraphs (a) and (b) of this section.

(Sec. 514(b); 20 U.S.C. 1104(b).)

§ 172.90 Teacher-intern and team leader medical insurance.

(a) The grantees shall provide teacher-interns and team leaders with medical insurance coverage (including hospitalization) during their participation in a project.

(b) Dependents who receive more than one half of their support from a teacher-intern must be included in this insurance coverage.

(c) A grantee which provides this medical insurance coverage shall use funds under its grant to pay up to 100 percent of the cost of the insurance.

(Sec. 514 (d), (e); 20 U.S.C. 1104 (d), (e).)

§ 172.91 Training stipends for teachers and other educational personnel.

(a) The institution of higher education or local educational agency may pay a training stipend to each of the teachers and other educational personnel employed by a project school who participate in training under this part during a period of the year (if any) not covered by a local employment contract.

(b) The training stipend may be at a rate of not more than \$100 per individual per week, prorated if the training is part-time.

(c) A local educational agency shall use funds under its grant to pay up to 100 percent of the cost of stipends paid under this section.

(Sec. 514(b); 20 U.S.C. 1104(b).)

§ 172.92 Released time for educational personnel.

(a) If authorized by the Commissioner, the local educational agency may use funds under its grant to pay the cost of releasing educational personnel from their regular duties in a project school to participate in training under this part.

(b) The Commissioner may authorize a local educational agency to use funds under paragraph (a) of this section if the local educational agency demonstrates in its application that the project is or will be placed in jeopardy by the lack of compensation for released time.

(Sec. 514(f); 20 U.S.C. 1104(f).)

§ 172.93 Compensation of volunteers.

(a) Volunteers who serve as part-time tutors or full-time instructional aides in project schools are paid or unpaid, according to local policy.

(b) If volunteers are paid, they must be compensated at a rate equal to that being paid other volunteers for similar work.

(c) A grantee which pays any compensation under this section shall use funds under its grant to pay up to 90 percent of that compensation.

(Sec. 513(a)(5); 20 U.S.C. 1103(a)(5); sec. 514(a)(3); 20 U.S.C. 1104(a)(3).)

§ 172.94 Travel expenses of Teacher Corps members.

(a) The grantees shall pay, subject to paragraph (b) of this section:

(1) The necessary travel expenses of Teacher Corps members and their dependents;

(2) The necessary expenses for transportation of the household goods and personal effects of Teacher Corps members and their dependents; and

(3) Other necessary expenses of Teacher Corps members and their dependents which are directly related to their service in the project, including readjustment allowances proportionate to that service.

(b) A teacher-intern whose last permanent address before coming to a project is outside the community served by the project, shall be paid:

(1) By the institution of higher education for his or her necessary travel expenses to the project (by the least expensive common carrier or by private automobile subject to any institutional rules on reimbursement for mileage); and

(2) By the local educational agency for:

(i) The necessary travel expenses of teacher-intern dependents to the project (by the least expensive common carrier or by private automobile subject to any agency limits on reimbursement for mileage); and

(ii) The necessary expenses for shipment to the project of up to 11,000 pounds of household goods and personal effects owned by the teacher-intern or his or her dependents.

(Sec. 514(c); 20 U.S.C. 1104(c).)

Subpart C—Youth Advocacy Projects

§ 172.100 Purpose and project design.

(a) *Purpose.* Under this subpart, the Commissioner provides assistance to projects designed to attract and train educational personnel who provide remedial, basic, and secondary educational training (including literacy and communication skill training) to juvenile delinquents or youth offenders.

(b) *Project design.* A youth advocacy project must be designed to meet the special educational needs of juvenile delinquents or youth offenders.

(Sec. 513(a)(6); 20 U.S.C. 1103(a)(6).)

§ 172.101 Other sections in this part apply to youth advocacy projects.

Subject to any exceptions specifically listed in this subpart, all of the sections in this part apply to youth advocacy projects.

(Secs. 551 et seq.; 20 U.S.C. 1103 et seq.)

§ 172.102 Youth advocacy project joint participation.

(a) Section 172.10 (Joint participants) does not apply to youth advocacy projects.

(b) Each project assisted under this subpart must be carried out jointly by:

(1) One or more institutions of higher education;

(2) One or more local educational agencies;

(3) A community council established under § 172.104; and

(4) One or more of the following correctional facilities:

(i) A detention center;

(ii) An incarceratory institution;

(iii) A public or private non-profit alternative school for delinquent youth; or

(iv) A special center, within a public school, which serves the special needs of juvenile delinquents or youth offenders, or both.

(c) The correctional facility must participate equally under each section of the regulation in this part that requires joint participation or collaboration.

(d) A project assisted under this subpart may also include participation by a State educational agency.

(Sec. 513(a)(6)(e); 20 U.S.C. 1103 (a)(6)(e).)

§ 172.103 Project schools.

(a) Section 172.12 (Project schools) does not apply to youth advocacy projects.

(b) A youth advocacy project must include one or more junior high schools or senior high schools, or both, of the local educational agency.

(c) A youth advocacy project may include one or more schools of the correctional facility.

(Sec. 513(a)(6); 20 U.S.C. 1103(a)(6).)

§ 172.104 Youth advocacy project community council.

(a) Each youth advocacy project must include an elected community council of at least seven members.

(b) The community council must be representative of:

(1) The parents of the juvenile delinquents or youth offenders participating in the project; and

(2) The residents of the areas served by the project schools.

(Sec. 513(e)(1), (g); 20 U.S.C. 1103(e)(1), (g).)

§ 172.105 Policy board.

The policy board under § 172.15 must include as a member the director of the correctional facility (or his or her equivalent).

(Sec. 513(a)(6); 20 U.S.C. 1103(a)(6).)

§ 172.106 Youth advocacy projects—separate grants.

(a) If an application is selected for assistance under this subpart, the Commissioner awards a grant to the institution of higher education, a grant to the local educational agency, and a grant to the correctional facility.

(b) If the application includes more than one institution of higher education, more than one local educational agency or more than one correctional facility, the Commissioner may award grants to one or more of those institutions, agencies, or facilities.

(Sec. 513(a)(6); 20 U.S.C. 1103(a)(6).)

§ 172.107 Time period before correctional facility may apply for a new project.

If a correctional facility participates in a project, it may not apply for a new project until three years after the end of that participation.

(Sec. 513(a)(6); 20 U.S.C. 1103(a)(6).)

§ 172.108 Correctional facility functions.

A correctional facility may perform the following functions under its grant:

(a) Recruiting, selecting, and enrolling Teacher Corps members.

(b) Training Teacher Corps members.

(c) Paying the compensation of Teacher Corps members.

(d) Paying compensation for released time for educational personnel while in training, within the limitations in § 172.92.

(e) Paying the administrative and secretarial costs of the community council.

(f) Project administration, including planning, documentation, evaluation, and dissemination.

§ 172.109 Youth advocacy teacher-intern training.

In addition to the training required under § 172.47 (training program for teacher-interns), a youth advocacy project must include teacher-intern training in a correctional facility where youths are:

(a) Incarcerated; or

(b) Having problems adjusting to traditional educational programs; or

(c) Preparing to return to the school-community environment.

(Sec. 513(a)(6); 20 U.S.C. 1103(a)(6).)

Subpart D—Project Administration**§ 172.110 Management plan.**

(a) Each project must have a management plan for the project years, which includes:

- (1) A description of the activities to be carried out;
- (2) A description of the sequence and timing of the activities;
- (3) The assignment of responsibilities;

(4) A description of the resources to be used for each activity;

(5) A detailed budget for the initial project year (which must be updated in each succeeding year);

(6) A budget for later project years in outline form; and

(7) An analysis of how the activities contribute to achieving the objectives adopted under §§ 172.61-172.65.

(b) The management plan must be revised at least annually.

(c) The management plan must show in detail how it contributes to meeting each of the objectives adopted under §§ 172.61-172.65.

§ 172.111 Project director.

(a) Each project must have a project director.

(b) A temporary project director may be appointed at the beginning of the initial project year.

(c) A permanent project director must be appointed before the end of the initial project year.

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.112 Compensation of project director and staff.

(a) The project director and other project administrative staff are not Teacher Corps members. They must be employed by a grantee.

(b) A grantee may use funds under its grant to pay the salaries of the project director and project staff.

(Sec. 513(a); 20 U.S.C. 1103(a).)

§ 172.113 Employment of project administrative staff.

(a) The project administrative staff must be hired from the grantees' regular employees whenever possible.

(b) A grantee must design its hiring of project administrative staff so that it gives consideration to persons who are broadly representative of the ethnic and cultural characteristics of the community served by the project.

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.114 Supervision of Teacher Corps members.

(a) Teacher Corps members are under the direct supervision of the local educational agency to which they are assigned.

(b) Subject to the requirements in §§ 172.81-172.84, (regarding teacher-in-

terns), the local educational agency retains the authority to:

- (1) Assign Teacher Corps members within its system;
- (2) Transfer Teacher Corps members within its system;
- (3) Determine the terms and continuance of the assignment of Teacher Corps members within its system.

(Sec. 516; 20 U.S.C. 1106.)

Subpart E—Applications**§ 172.122 Policy board.**

An application must include a description of the members, method of selection, and operating procedures of the policy board.

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.123 Institution of higher education.

(a) An application must include a description of each institution of higher education, including:

- (1) Its degree offerings in education; and
- (2) Its pre-service and in-service graduate training program.

(b) An application must also include a description of past and current efforts by the institution of higher education to improve its educational personnel training and retraining programs, and the way those efforts relate to the project.

(Sec. 511(a); 20 U.S.C. 1101(a); Sec. 513(b); 20 U.S.C. 1103(b).)

§ 172.124 Project schools.

An application must include: (a) A brief description of each project school, including the size of the educational staff and the relationships among the schools in the feeder system;

(b) A description of past and current efforts to improve each project school, and the way those efforts relate to the projects;

(c) A statement that each project school meets the low-income criterion in § 172.12(b);

(d) A statement that all educational personnel employed by the project schools will be involved in planning and carrying out the project in that school; and

(e) If the project includes more than four teacher-interns, an assurance that the local educational agency will employ all of the teacher-interns who complete their internships.

(f) If the project includes as teacher-interns persons who do not have bachelors degrees, a certification by the local education agency that there are not enough teacher-intern candidates who have bachelors degrees available locally or through use of the national listing of qualified applicants.

(Sec. 511(a); 20 U.S.C. 1101(a); Sec. 513(a); 20 U.S.C. 1103(a)(3).)

§ 172.125 Community council.

An application must include:

(a) A description of the temporary community council, including:

- (1) The purpose for which the council was originally established;
- (2) The boundaries and compositions of the community represented by the council;

(3) The terms of the council members;

(4) The date and methods of election of the council members; and

(5) The number of council members.

(b) A description of the permanent community council, including:

- (1) The boundaries and composition of the community represented by the council;
- (2) The number of council members;
- (3) The terms of the council members;

(4) The date and method of election of the council members; and

(5) The activities to be carried out by the council.

(c) An assurance that the community council participates with the other applicants in planning, carrying out, and evaluating the project.

(Sec. 513(e); 20 U.S.C. 1103(e).)

§ 172.126 Correctional facility.

An application for a youth advocacy project must include a description of each correctional facility.

(Sec. 513(e); 20 U.S.C. 1103(e).)

§ 172.127 Project objectives.

An application must include a description of each project objective adopted under §§ 172.61-172.65, including the basis for each objective in research, theory, or practical experience.

(Sec. 511(a); 20 U.S.C. 1101(a); Sec. 513(a); 20 U.S.C. 1103(g).)

§ 172.128 Management and staffing plans.

An application must include the management plan required under § 172.110 and a staffing plan.

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.130 Released time.

A local educational agency which wishes to use grant funds under § 172.92 (released time for educational personnel) must demonstrate in the application that the project is or will be placed in jeopardy by the lack of compensation for released time.

(Sec. 514(f); 20 U.S.C. 1104(f).)

§ 172.132 Project activities.

An application must include a description of: (a) The teacher-intern recruitment methods;

(b) The organization of each teacher-intern team in each project school;

(c) The training program for teacher-interns;

(d) The training program for volunteers, teachers, and other educational personnel;

(e) The project plans and methods for achieving each of the objectives adopted under §§ 172.61-172.65; and

(f) Project evaluation to date.

(Sec. 513; 20 U.S.C. 1103.)

§ 172.133 Youth advocacy projects.

In addition to the other requirements in this subpart, an application for a youth advocacy project must describe:

(a) The persons receiving training in the project in remedial, basic, and secondary education;

(b) The special educational needs of the persons described under paragraph (a) of this section;

(c) How the project is designed to:

(1) Meet the needs of those persons; and

(2) Attract and train educational personnel who provide educational training to juvenile delinquents or youth offenders.

(Sec. 513(a)(6); 20 U.S.C. 1103(a)(6).)

§ 172.134 Information responding to evaluation criteria.

An application must include information which provides a basis for evaluating it under each of the criteria in Subpart F.

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.135 Approval of applications by the State educational agency.

(a) The Commissioner may not approve an application submitted under this part unless the State educational agency of the State in which the project is located has approved the application.

(b) The approval by the State educational agency must be:

(1) In writing and signed by the chief State school officer; and

(2) Attached to the application before the application is submitted to the Commissioner.

(c) The State educational agency shall approve an application that is:

(1) In conformance with all applicable State laws, rules, and regulations; and

(2) Consistent with overall plans for teacher education in that State.

(Sec. 512 (a)(2), (3), (5); 20 U.S.C. 1103 (a) (2), (3), (5).)

§ 172.136 Continuation grant application.

In addition to meeting all of the other requirements of this subpart, an application for a continuation grant must include a description of:

(a) Planning done during the initial project year;

(b) Project experience to date; and

(c) Any revisions of or additions to the project objectives.

(Sec. 512(a) (2), (3), (5); 20 U.S.C. 1103(a); 20 U.S.C. 1103(g).)

§ 172.137 Annual publication of application submission date.

The Commissioner publishes the date and place to submit project applications annually in the *FEDERAL REGISTER*.

(Sec. 513(g); 20 U.S.C. 1103(g).)

Subpart F—Evaluation Criteria

§ 172.150 Evaluation procedure.

(a) Applications for grants under this part are evaluated by the Commissioner on the basis of the criteria in this subpart. The criteria in § 100a.26(b) of this chapter do not apply.

(b) Each application for initial project funding is evaluated in competition with all other applications for initial project funding.

(c) Each application for a continuation grant is evaluated noncompetitively based on the effectiveness of the project and the availability of appropriations.

(d) The evaluation of applications for initial project funding is based on a point system. Each criterion is weighted as indicated. The highest possible score under these criteria is 100 points.

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.151 School learning climate criterion (25 points).

In evaluating an application the Commissioner considers the extent to which:

(a) The objectives developed under § 172.62 (school objectives) (improved school climate) are likely to achieve the outcomes in § 172.60(a) (8 points);

(b) The project activities are likely to accomplish the objectives developed under § 172.62 (9 points); and

(c) The management plan for accomplishing the objectives developed under § 172.62 is realistic and economical (8 points).

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.152 Educational personnel development system criterion (36 points).

In evaluating an application, the Commissioner considers the extent to which:

(a) The objectives developed under § 172.63 (educational personnel development) are likely to achieve the outcome in § 172.60(b) (improved educational personnel development system) (9 points);

(b) The project training activities are likely to accomplish the objectives developed under § 172.63 (b) (improved educational personnel development system) (9 points);

(c) The project activities are likely to accomplish the objectives developed

under § 172.63(a) and (c) (9 points); and

(d) The management plan for accomplishing the objectives developed under § 172.63 is realistic and economical (9 points).

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.153 Institutionalization criterion (21 points).

In evaluating an application, the Commissioner considers the extent to which:

(a) The objectives developed under § 172.64 (institutionalization) are likely to achieve the outcome in § 172.60(c) (continuation of educational improvements) (7 points);

(b) The project activities are likely to accomplish the objectives developed under § 172.64 (8 points); and

(c) The management plan for accomplishing the objectives developed under § 172.64 is realistic and economical (6 points).

(Sec. 513(g); 20 U.S.C. 1103(g).)

§ 172.154 Adaptation of educational improvements criterion (18 points).

In evaluating an application, the Commissioner considers the extent to which:

(a) The objectives developed under § 172.65 (demonstration and dissemination) are likely to achieve the outcome in § 172.60(d) (adaptation of educational improvements) (6 points);

(b) The project activities are likely to accomplish the objectives developed under § 172.65 (6 points); and

(c) The management plan for achieving the objectives developed under § 172.65 is realistic and economical (6 points).

(Sec. 513(g); 20 U.S.C. 1103(g).)

APPENDIX—PART A OF TITLE V OF THE HIGHER EDUCATION ACT OF 1965, AS AMENDED—TEACHER CORPS PROGRAM STATEMENT OF PURPOSE AND AUTHORIZATION OF APPROPRIATIONS

Sec. 511. (a) The purpose of this part is to strengthen the educational opportunities available to children in areas having concentrations of low-income families and to encourage colleges and universities to broaden their programs of teacher preparation and to encourage institutions of higher education and local educational agencies to improve programs of training and retraining for teachers, teacher aides, and other educational personnel by—

(1) Attracting and training qualified teachers who will be made available to local educational agencies for teaching in such areas;

(2) Attracting and training inexperienced teacher-interns who will be made available for teaching and in-service training to local educational agencies in such areas in teams led by an experienced teacher;

(3) Attracting volunteers to serve as part-time tutors or full-time instructional assistants in programs carried out by local educational agencies and institutions of higher education serving such areas;

(4) Attracting and training educational personnel to provide relevant remedial, basic, and secondary educational training, including literacy and communications skills, for juvenile delinquents, youth offenders, and adult criminal offenders;

(5) Supporting demonstration projects for retraining experienced teachers, teacher aides, and other educational personnel serving in local educational agencies.

(b) For the purpose of carrying out the provisions of this part there are authorized to be appropriated \$50,000,000 for the fiscal year 1977, \$75,000,000 for the fiscal year 1978, and \$100,000,000 for the fiscal year 1979.

ESTABLISHMENT OF TEACHER CORPS

SEC. 512. In order to carry out the purposes of this part, there is hereby established in the Office of Education a Teacher Corps. The Teacher Corps shall be headed by a Director who shall be compensated at the rate prescribed for grade 17 of the General Schedule of the Classification Act of 1949, and a Deputy Director who shall be compensated at the rate prescribed for grade 16 of such General Schedule. The Director and the Deputy Director shall perform such duties as are delegated to them by the Commissioner; except that (1) the Commissioner may delegate his functions under this part only to the Director, and (2) the Director and Deputy Director shall not be given any function authorized by law other than that granted by this part.

TEACHER CORPS PROGRAM

SEC. 513. (a) For the purpose of carrying out this part, the Commissioner is authorized to—

(1) Enter into contracts or other arrangements with institutions of higher education or local educational agencies under which they will recruit, select, and enroll in the Teacher Corps for periods of up to five years, experienced teachers, teacher aides, and other educational personnel, persons who have a bachelor's degree or its equivalent, and persons who have successfully completed two years of a program for which credit is given toward a baccalaureate degree and, for such periods as the Commissioner may prescribe by regulation, persons who volunteer to serve as part-time tutors or full-time instructional assistants;

(2) Enter into arrangements, through grants or contracts, with institutions of higher education or local educational agencies (upon approval in either case by the appropriate State educational agency) or with State educational agencies to provide members of the Teacher Corps with such training as the Commissioner may deem appropriate to carry out the purpose of this part, including not more than three months of training for members before they undertake their teaching duties under this part;

(3) Enter into arrangements (including the payment of the cost of such arrangements) with local educational agencies upon approval by the appropriate State educational agency and, after consultation in appropriate cases with institutions of higher education, to furnish to local educational agencies, for service during regular or summer sessions, or both, in the schools of such agencies in areas having concentrations of children from low-income families, Teacher Corps programs each of which shall include teacher-interns teams lead by experienced teachers, and may include additional experienced teachers, teacher aides,

and other educational personnel, who may be afforded time by the local educational agency for a training program carried out in cooperation with an institution of higher education;

(4) Pay to local educational agencies such part of the amount of the compensation which such agencies pay to or on behalf of members of the Teacher Corps assigned to them pursuant to arrangements made pursuant to the preceding clause as may be agreed upon after consideration of their ability to pay such compensation, but not in excess of 90 per centum thereof, except that, in exceptional cases, the Commissioner may provide more than 90 per centum of such compensation during the first year of any agency's participation in the program;

(5) Enter into contracts or other arrangements with local educational agencies or institutions of higher education, upon approval by the appropriate State educational agency, under which provisions (including payment of the cost of such arrangements) will be made (A) to carry out programs serving disadvantaged areas in which volunteers (including high school and college students) serve as part-time tutors or full-time instructional assistants in teams with other Teacher Corps members, under the guidance of experienced teachers, but not in excess of 90 per centum of the cost of compensation for such tutors and instructional assistants may be paid from federal funds, and (B) to provide appropriate training to prepare tutors and instructional assistants for service in such programs;

(6) Enter into arrangements, through grants or contracts, with State and local educational agencies, and with institutions of higher education, and such other agencies or institutions approved by the Commissioner according to criteria which shall be established by him to carry out the purposes of this paragraph, under which provisions (including payments of the cost of such arrangements) will be made to furnish to such agencies members of the Teacher Corps to carry out projects designed to meet the special educational needs of juvenile delinquents, youth offenders, and adult criminal offenders, and persons who have been determined by a State or local educational agency, court of law, law enforcement agency or any other State or local public agency to be predelinquent juveniles, but not in excess of 90 per centum of the cost of compensation for Teacher Corps members serving in such projects may be paid from Federal funds;

(7) (A) Make available technical assistance to State and local educational agencies and institutions of higher education for carrying out arrangements entered into under this title; and

(B) Provide planning, technical assistance, monitoring, documenting, dissemination, and evaluation services for arrangements made under this title;

(8) Acquaint qualified persons of teaching opportunities and needs in disadvantaged areas and encourage qualified persons to apply to appropriate educational agencies or institutions for enrollment in the Teacher Corps; and

(9) Accept and employ in the furtherance of the purposes of this subpart (A) voluntary and uncompensated services notwithstanding the provisions of section 3679(b) of the Revised Statutes, as amended (31 U.S.C. 665(b)), and (B) any money or property (real, personal, or mixed, tangible or intangible) received by gift, devise [sic], bequest, or otherwise.

(b) Arrangements with institutions of higher education to provide training for Teacher Corps members while serving in schools for local educational agencies under the provisions of this part shall provide, wherever possible, for training leading to an appropriate degree.

(c) (1) Whenever the Commissioner determines that the demand for the services of members of the Teacher Corps exceeds the number available, he shall, to the extent practicable, allocate the number of members of the Teacher Corps who are available among the States in accordance with paragraph (2).

(2) Not to exceed 5 per centum of the number of members of the Teacher Corps who are available shall be allocated to Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands and not to exceed 5 per centum of such members shall be allocated to the elementary and secondary schools operated for Indian children by the Department of Interior, according to their respective needs. The remainder of such number of Teacher Corps members shall be allocated among the States so that the number of members available to any State shall bear the same ratio to the number being allocated as the number of children enrolled in the public and private elementary and secondary schools of that State bears to the total number of children so enrolled in all of the States. The number of children so enrolled shall be determined by the Commissioner on the basis of the most recent satisfactory data available to him. For purposes of this subsection, the term "State" shall not include Puerto Rico, the Virgin Islands, Guam, American Samoa, or the Trust Territory of the Pacific Islands.

(3) If the Commissioner determines that a State will not require the number of Teacher Corps members allocated to it under paragraph (2), he shall, from time to time, reallocate the number not required, on such dates as he may fix, to other States in proportion to the original allocation to such States under paragraph (2), but with such proportionate number for any of such other States being reduced to the extent it exceeds the number the Commissioner determines such State needs and will be able to use for such year; and the total of such reductions shall be similarly reallocated among the States whose proportionate numbers were not so reduced.

(d) A local educational agency may utilize members of the Teacher Corps assigned to it in providing, in the manner described in section 205(a) (2) of Pub. L. 874, Eighty-first Congress, as amended, educational services in which children enrolled in private elementary and secondary schools can participate.

(e) (1) No arrangement may be entered into under the provisions of paragraph (1), (2), (3), (5), or (6) of subsection (a) of this section unless that arrangement is prepared with the participation of an elected council which shall be representative of the community in which the project subject to that arrangement is located and of the parents of the students of the elementary or secondary schools or both, to be served by such project.

(2) Each council selected pursuant to this subsection shall participate with the local educational agency or institution of higher education, or both, in the planning, carrying out, and evaluation of projects subject to arrangements under paragraphs (1), (2), (3), (5), and (6) of subsection (a) of this section.

(3) The Commissioner is authorized in each fiscal year to arrange for the payment of necessary secretarial and administration expenses of each council elected pursuant to the provisions of this subsection for the purposes of carrying out its functions under this subsection.

(f) The Commissioner shall establish procedures seeking, with respect to the Teacher Corps members enrolled after the date of enactment of the Education Amendments of 1976, [a] goal of having approximately five individuals who are at the time of enrollment, or who previously have been, employed as teachers by local educational agencies to one individual who has not been so employed. The Commissioner may waive the procedure established under this subsection if he makes a determination that there are insufficient qualified applicants to maintain the goal sought by this subsection, or that there are insufficient employment opportunities for individuals who are not so employed, and submits a report to the Congress of such a determination.

(g) Notwithstanding any other provision of law, the Commissioner shall develop and establish specific criteria for entering into arrangements under this part in order to assist applicants for assistance under this part to develop proposals to be submitted. Criteria established under this subsection shall be used by the Commissioner in selecting proposals under this title.

COMPENSATION

Sec. 514. (a) An arrangement made with a local educational agency pursuant to paragraph (3) of section 513 (a) or arrangement with a local educational agency or institution of higher education pursuant to paragraph (5) of section 513(a), or an arrangement with any agency pursuant to paragraph (6) of section 513(a), shall provide for compensation by such agency of Teacher Corps member during the period of their assignment to it at the following rates:

(1) An experienced teacher who is leading a teaching team shall be compensated at a rate agreed to by such agency and the Commissioner.

(2) A teacher intern shall be compensated at such rates as the Commissioner may determine to be consistent with the nature of the program and with prevailing practices under comparable federally supported programs or local projects, not to exceed \$150 per week plus \$15 per week for each dependent; and

(3) Tutors and instructional assistants shall be compensated at such rates as the

Commissioner may determine to be consistent with prevailing practices under comparable federally supported work-study programs.

(b) For any period of training under this part the Commissioner shall pay to members of the Teacher Corps such stipends (including allowances for subsistence and other expenses for such members and their dependents) as he may determine to be consistent with prevailing practices under comparable federally supported training programs.

(c) The Commissioner shall pay the necessary travel expenses of members of the Teacher Corps and their dependents and necessary expenses for the transportation of the household goods and personnel effects of such members and their dependents, and such other necessary expenses of such members as are directly related to their services in the Corps, including readjustment allowances proportionate to service.

(d) The Commissioner is authorized to make such arrangements as may be possible, including the payment of any costs incident thereto, to protect the tenure, retirement rights, participation in a medical insurance program, and such other similar employee benefits as the Commissioner deems appropriate, of a member of the Teacher Corps who participates in any program under this part and who indicates his intention to return to the local educational agency or institution of higher education by which he was employed immediately prior to his service under this part.

(e) The Commissioner is authorized to provide medical (including hospitalization) insurance for members of the Teacher Corps who do not otherwise obtain such insurance coverage either under an arrangement made pursuant to subsection (d) of this section or as an incident of an arrangement between the Commissioner and an institution or a State or local educational agency pursuant to section 513.

(f) The Commissioner is authorized to compensate local educational agencies for released time for educational personnel of the agency who are being trained in Teacher Corps projects assisted under this title.

APPLICATION OF PROVISIONS OF FEDERAL LAW

Sec. 515. (a) Except as otherwise specifically provided in this section, a member of the Teacher Corps shall be deemed not to be a Federal employee and shall not be subject to the provisions of laws relating to Federal employment, including those relating to hours of work, rates of compensation,

leave, unemployment compensation, and Federal employee benefits.

NOTE.—Subsection (b) was repealed by Pub. L. 90-83.

(c) Such members shall be deemed to be employees of the Government for the purposes of the Federal tort claims provisions of title 28, United States Code.

(d) Members of the Teacher Corps shall not be eligible to receive payment of a student loan under title II of the National Defense Education Act of 1958 or of an educational opportunity grant under title IV of this Act.

LOCAL CONTROL PRESERVED

Sec. 516. Members of the Teacher Corps shall be under the direct supervision of the appropriate officials of the local educational agencies to which they are assigned. Except as otherwise provided in clause (3) of section 513(a), such agencies shall retain the authority to—

- (1) Assign such members within their systems;
- (2) Make transfers within their systems;
- (3) Determine the subject matter to be taught;
- (4) Determine the terms and continuance of the assignment of such members within their systems.

MAINTENANCE OF EFFORT

Sec. 517. No member of the Teacher Corps shall be furnished to any local educational agency under the provisions of this part if such agency will use such member to replace any teacher who is or would otherwise be employed by such agency.

TEACHING CHILDREN OF MIGRATORY AGRICULTURE WORKERS

Sec. 517A. For purposes of this part the term "local educational agency" includes any State educational agency or other public or private nonprofit agency which provides a program or project designed to meet the special educational needs of migratory children of migratory agricultural workers, and any reference in this part to (1) teaching in the schools of a local educational agency includes teaching in any such program or project and (2) "migratory children of migratory agricultural workers" shall be deemed to continue to refer to such children for a period, not in excess of five years, during which they reside in the area served by the local educational agency.

[FR Doc. 78-4356 Filed 2-22-78; 8:45 am]

THURSDAY, FEBRUARY 23, 1978
PART III



DEPARTMENT OF
STATE

FISHERY CONSERVATION
AND MANAGEMENT
ACT OF 1976

Applications for Permits To Fish Off
the Coasts of the United States

[4710-01]

DEPARTMENT OF STATE

[Public Notice 594]

FISHERY CONSERVATION AND MANAGEMENT
ACT OF 1976Applications for Permits To Fish Off the Coasts
of the United States

The Fishery Conservation and Management Act of 1976 (Pub. L. 94-265) (the "Act") provides that no fishing shall be conducted by foreign fishing vessels in the Fishery Conservation Zone of the United States after February 28, 1977, except in accordance with

a valid and applicable permit issued pursuant to section 204 of the Act.

The Act also requires that all applications for such permits be published in the FEDERAL REGISTER.

Additional applications for fishing during 1978 have been received from the Governments of the Republic of China, Korea, Union of Soviet Socialist Republics and Polish People's Republic are published herewith.

Dated: February 15, 1978.

LARRY L. SNEAD,
Acting Director,
Office of Fisheries Affairs.

FISHING VESSEL IDENTIFICATION FORM (FOREIGN)

NO. TW-78-0054

1. Name of Vessel HIGHLY NO.303 2. Visual Identif. BMCS
3. Type of Vessel CARGO/TRANSPORT 4. Length 70.80 M
5. Gross Tonnage 976.81 TONS 6. Net Tonnage 514.25 TONS 7. Speed (knots) 12 KNOTS
8. Owner's Name and Address HIGHLY ENTERPRISE CORP.
354, NANKING W. ROAD, TAIPEI (101)
9. Types of Processing Equipment REFRIGERATING MACHINE (NH3 COMPRESSOR 2 SETS).
10. Fisheries for which Permit is Requested:

Fishery Plans	Target Species	Gear To Be Used	Catching	Processing	Other Support
BSA					X
GOA					X

11. Are Fishing Activities Requested in Support of Vessels of a Different Flag:

☒ No ☐ Yes (If yes, attach supplemental sheet showing flag of other vessels, fishery, species, quantities, dates, locations and specific activities requested.)

FISHING VESSEL IDENTIFICATION FORM (FOREIGN)

No. KS-78-0081

1. Name of Vessel Tae Yang 12 2. Visual Identif. 6LBB
3. Type of Vessel Transport 4. Length 78.66 M
5. Gross Tonnage 1,332 6. Net Tonnage 827 7. Speed (knots) 12.3
8. Owner's Name and Address Korea Marine Industry Development Corporation
#55-4, Seodoman-dong, Chung-ku, Seoul, Korea
9. Types of Processing Equipment Cargo capacity: 1,200 M/T
Freezer: 3 Dry Hold: 2 Tanks: 17
10. Fisheries for which Permit is Requested:

Fishery Plans	Target Species	Gear To Be Used	Catching	Processing	Other Support
GOA					X (Transport)

11. Are Fishing Activities Requested in Support of Vessels of a Different Flag:

☐ No ☒ Yes (If yes, attach supplemental sheet showing flag of other vessels, fishery, species, quantities, dates, locations and specific activities requested.)

TAE YANG 12
KS-78-0081

Specific Activities: This vessel will be receiving fish from the BOOK NEUNG and SOO GONG No. 51. BOOK NEUNG and SOO GONG No. 51 have applied for authorization to purchase raw fish from U.S. vessels.

Flag of other vessels: U.S.

Fishery: GOA - Bottom fish fishing

Species: Primary pollock and incidental species including pop, pacific cod, flounders, rockfish and other species.

Quantity: Amount of fish that has been purchased from U.S. vessels and processed by BOOK NEUNG AND SOO GONG No. 51.

Locations: Various location within the U.S. fishery conservation zone in the Gulf of Alaska.

Dates: April 1 - December 31, 1978 which will depend upon culmination of arrangements with U.S. fishermen.

FISHING VESSEL IDENTIFICATION FORM (FOREIGN)

No. PL-78-0042

1. Name of Vessel COLUMBA 2. Visual Identif. SPKO
3. Type of Vessel STERN TRAWLER B-15 4. Length 83 m
5. Gross Tonnage 2321 6. Net Tonnage 945 7. Speed (knots) 12.5
8. Owner's Name and Address Deep Sea Fishery and Fishing Service Enterprise
"DALMOR" 81-963 Gdynia POLAND
9. Types of Processing Equipment Bander I-181,47 x 2, II-188,413,47.
III-181,47 x 2 Filleter and skinning

10. Fisheries for Which Permit is Requested:

Fishery Plans	Target Species	Gear To Be Used	Catching	Processing	Other Support
WOC	HAKE	MID-WATER			
	JACK MACKEREL	TRAWL	X	X	
GOA	POLLOCK	BOTTOM TRAWL	X	X	
	ATKA MACKEREL				

11. Are Fishing Activities Requested in Support of Vessels of a Different Flag:

☒ No ☐ Yes (If yes, attach supplemental sheet showing flag of other vessels, fishery, species, quantities, dates, locations and specific activities requested.)

FISHING VESSEL IDENTIFICATION FORM (FOREIGN)

No. UR-78-0561-A

1. Name of Vessel VISATEL 2. Visual Identif. BNWH
3. Type of Vessel Stern trawler 4. Length 82
5. Gross Tonnage 2657 6. Net Tonnage 1139 7. Speed (knots) 13.6
8. Owner's Name and Address Nakhodkinskaja Baza Aktivnogo Morskogo
Rybolovstva, Nakhodka, USSR
9. Types of Processing Equipment Fish meal plant, freezer

10. Fisheries for Which Permit is Requested:

Fishery Plans	Target Species	Gear To Be Used	Catching	Processing	Other Support
SMT	Seamount Groundfish	Bottom Trawl	X		
		Midwater Trawl		X	

11. Are Fishing Activities Requested in Support of Vessels of a Different Flag:

☒ No ☐ Yes (If yes, attach supplemental sheet showing flag of other vessels, fishery, species, quantities, dates, locations and specific activities requested.)

FISHING VESSEL IDENTIFICATION FORM (FOREIGN)

No. PL-78-0043

1. Name of Vessel CENTAURUS 2. Visual Identif. SPVM
3. Type of Vessel STERN TRAWLER B-15 4. Length 83 m
5. Gross Tonnage 2354 6. Net Tonnage 957 7. Speed (knots) 12.5
8. Owner's Name and Address Deep Sea Fishery and Fishing Service Enterprise
"DALMOR" 81-963 Gdynia POLAND
9. Types of Processing Equipment Bander I-181,47 x 2, II-188,413,47
III-181,47 x 2 Filleter and skinning

10. Fisheries for Which Permit is Requested:

Fishery Plans	Target Species	Gear To Be Used	Catching	Processing	Other Support
WOC	HAKE	MID-WATER			
	JACK MACKEREL	TRAWL	X	X	
GOA	POLLOCK	BOTTOM TRAWL	X	X	
	ATKA MACKEREL				

11. Are Fishing Activities Requested in Support of Vessels of a Different Flag:

☒ No ☐ Yes (If yes, attach supplemental sheet showing flag of other vessels, fishery, species, quantities, dates, locations and specific activities requested.)

[FR Doc. 78-4782 Filed 2-22-78; 8:45 am]

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

LABORATORY OF PHYSICAL CHEMISTRY

RESEARCH REPORT

NO. 1

1921

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

LABORATORY OF PHYSICAL CHEMISTRY

RESEARCH REPORT

NO. 2

1922

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

LABORATORY OF PHYSICAL CHEMISTRY

RESEARCH REPORT

NO. 3

1923

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

LABORATORY OF PHYSICAL CHEMISTRY

RESEARCH REPORT

NO. 4

Register
for
paper

THURSDAY, FEBRUARY 23, 1978
PART IV



**DEPARTMENT OF
COMMERCE**

**National Oceanic
and Atmospheric
Administration**



**COASTAL ENERGY
IMPACT PROGRAM**

Administrative Procedures

[3510-08]

Title 15—Commerce and Foreign Trade

CHAPTER IX—NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

PART 931—COASTAL ENERGY IMPACT PROGRAM

AGENCY: National Oceanic and Atmospheric Administration (NOAA) Department of Commerce.

ACTION: Final rule.

SUMMARY: This rule describes administrative procedures to implement the Coastal Energy Impact Program, which will provide grants and credit assistance to coastal States and communities to help them deal with the impacts of coastal energy development.

EFFECTIVE DATE: March 27, 1978.

FOR FURTHER INFORMATION CONTACT:

Joellyn K. Murphy, Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, 3300 Whitehaven Street NW., Washington, D.C. 20235, 202-634-4249.

SUPPLEMENTARY INFORMATION:

The Coastal Energy Impact Program (CEIP) was created by the 1976 amendments to the Coastal Zone Management Act of 1972 (Pub. L. 94-370; 16 U.S.C.A. 1451, et seq.) and signed into law on July 26, 1976. The National Oceanic and Atmospheric Administration (NOAA) published proposed regulations on October 22, 1976 (41 FR 46724). On January 5, 1977, NOAA published interim-final regulations (42 FR 1164). The preamble to both sets of regulations discussed the implementation of the CEIP in detail, and the preamble to the interim-final regulations addressed in detail the issues raised and comments made during the 54-day comment period on the proposed regulations.

The following paragraphs detail the changes made since the publication of the interim-final regulations. Some of these changes are in response to comments made during the 30-day comment period on the interim-final regulations that closed February 4, 1977. Other changes are based on the experience gained by NOAA's Office of Coastal Zone Management (OCZM) in administering the CEIP since February 4, 1977, the effective date of the interim-final regulations.

Specific comments made during the comment period are also discussed in detail below.

MAJOR CHANGES AND RESPONSES TO COMMENTS

SUBPART A—OBJECTIVES

This subpart was not changed.

SUBPART B—GENERAL DEFINITIONS

The definition in § 931.13 of "new or expanded Outer Continental Shelf energy activity" has been amplified. Also, the definition of "impact area" has been deleted, since the concept of an impact area within a State has proven not to be useful in the allotment process.

Comments: One commentator suggested that the definition of "significantly affected" in § 931.14 be revised in such a way as to state clearly the amount of change in population or employment patterns that is considered "significant." The impact caused by population and employment changes will be site specific. A change in employment will cause a different impact in a community in which many people are unemployed than it would in a community in which there is little unemployment at the time the energy facility is sited. Therefore, no change has been made in the regulations.

One commentator argued that, under the existing structure of § 931.15 and § 931.20, an energy facility will qualify as "new" even if most of the facility was built before July 26, 1976. This may be true, but OCZM will consider only the impact caused after July 26, 1976.

One commentator suggested that the definition of "Outer Continental Shelf energy activity" found in § 931.17 be expanded to include gas processing plants. However, since the Congress did not intend to include those facilities required by the treatment of oil and gas, the regulations were not altered.

Another commentator objected to the definition of "unit of local government" in § 931.22(c). This commentator argued that planning agencies without taxing authority should not receive CEIP assistance, since "the action of this agency will have severe impact on the taxpayers." NOAA feels that area-wide planning agencies have a legitimate function under Federal and State law, and, as such, can perform a useful role in planning for the effects of coastal energy development. The definition, therefore, remains unchanged.

SUBPART C—BASIC ELIGIBILITY

The only substantive change to this subpart was the addition of a provision—§ 931.25(d)—specifying that should a coastal State lose its eligibility for an allotment or for award of funds, all moneys allotted to the State but not yet awarded for individual projects will be withheld. If the State in question has not regained its eligibility within 1 year, the withheld funds will be reallocated as appropriate among the remaining eligible coastal States.

Comments: One commentator suggested that the structure of paragraphs (b) and (c) of § 931.25 is un-

clear, and they should be restructured. This comment was rejected because OCZM believes the present structure is clear: Paragraph (b) states the criteria for "satisfactory progress toward the development of a management program consistent with the policies set forth in section 303" of the Act; paragraph (c) defines what is meant by "consistent with the policies set forth in section 303."

The same commentator requested that energy facilities be explicitly mentioned as in the national interest under § 931.25(c). Section 931.25(c)(2)(iii) already requires that uses of national interest not be arbitrarily excluded by the management program. Energy facilities are thus implicitly included, and there appears to be no reason to single out this type of national interest use over other types.

Another commentator suggested that the definition of eligibility contained in § 931.25 is unfair to local governments within a State since these governments would lose eligibility because of State decisions beyond their own control. The statute is clear on eligibility in this matter, however, and OCZM is required to determine statewide eligibility according to the State's progress toward coastal management. Since the development of coastal management should involve local governments directly, the decision to abandon coastal management is not entirely beyond the influence of local governments. Also, this definition of eligibility creates an added incentive for local governments to participate in and encourage coastal management in the State.

SUBPART D—PLANNING FOR THE CONSEQUENCES OF ENERGY FACILITIES

The significant changes in this subpart since the publication of the January 5, 1977, interim-final regulations are as follows:

(1) The interim-final regulations contained a restriction that a State could not use for planning an amount of formula grants greater than the percent of the credit assistance allotted to it for public facilities and services under section 308(d). This restriction has been removed. OCZM believes that to impose such a restriction would not be fully in keeping with the philosophy of the CEIP to provide maximum discretion and control to States and localities.

(2) The inventory of new or expanded energy facilities drawn up for the allotment of section 308(c) planning assistance has been changed from an annual list of facilities to a cumulative list. OCZM will update the list each year, removing those facilities for which planning is no longer needed and adding new facilities as they come on the horizon. This change avoids the potential "bunching problem" that

could arise with an annual list; i.e., a State could have many energy facilities on its inventory in one year and few in the next. This ongoing inventory will create, in conjunction with the formula applied to the facilities on the inventory, what might be called a "planning need index" that measures the level of relative need for planning among the eligible coastal States.

(3) The allotment procedure has been more fully described to indicate that fifteen percent of the moneys appropriated for section 308(c) will be allotted equally among all eligible coastal States. The remaining 85 percent will be allotted based on the planning inventory and formula procedures described in § 931.36(b)(2).

(4) Section 931.33(b) is now explicit that preliminary architectural and engineering services for public facilities required as a direct result of new or expanded OCS energy activity are an allowable use of the formula grants.

(5) The purposes cited in § 931.33 have been restructured into a more logical presentation. Its content has not changed substantially.

Comments: One commentator suggested that the objectives of this subpart—§ 931.31—explicitly include the limitation that planning assistance may be used only for the effects of those new or expanded energy facilities that "significantly affect" the coastal zone. This suggestion was not accepted because other provisions of Subpart D state clearly that planning assistance can be used to plan only for those energy facilities significantly affecting the coastal zone. Section 931.31 is intended to provide only general guidance on the objectives of CEIP planning assistance, followed by more specific direction on the procedures and uses of the assistance in the remaining provisions of Subpart D.

One commentator suggested that the definition of "eligible energy facility" in § 931.32 be clarified regarding facilities projected to be required as a result of an OCS lease sale, including specification of who makes these projections and on what basis. Because OCZM believes that a definition is not the appropriate place to set forth procedures, this section remains unchanged. Section 931.36(a)(2)(iii) states that OCZM will distribute to each coastal State the data and information on which its allotment will be based. These data will include the projections relating to OCS lease sales. The coastal States will have 45 days to comment on these data and on the allotment procedure.

One commentator suggested that § 931.33 be expanded to allow planning for the phasing out of energy facilities. This comment was adopted, as indicated in § 931.33(a)(2)(viii).

Another commentator suggested that the allowable uses in § 931.33 are

far too broad, and they should be narrowed because some of the types of planning listed could not be carried out efficiently or in a timely way by coastal States or communities. OCZM intends to rely on the intra-State allocation process required by section 308(g)(2) of the Act to ensure that only the most feasible and effective projects are undertaken within a State. It does not appear appropriate to narrow the allowable uses or to limit the discretion of the States and localities in determining the most appropriate type of planning for the effects of new or expanded energy facilities significantly affecting the coastal zone. Furthermore, the uses specified in § 931.33 are not requirements for State or local planning. Accordingly, § 931.33 remains unchanged.

Another commentator suggested that, since new or expanded energy facilities can often have salutary economic and other effects on States and communities, the allowable uses of § 931.33 should be expanded to permit planning for beneficial effects of such facilities. Because such planning is already implicitly permitted under the present structure of that section, it has not been modified.

One commentator felt that the planning funds under this subpart are not being made available in a timely fashion because the use of the planning moneys is tied to the eligible energy facilities on the allotment inventory—and a facility may not enter this inventory until it is too late to undertake basic or preliminary planning. This comment appears to be based on a fundamental misunderstanding of Subpart D. The use of planning funds is not tied to or limited in any way to the specific facilities on the allotment inventory. The inventory is developed with equity in mind; it is a way of dividing a fixed sum of money fairly among all the eligible coastal States. But, once allotted, the funds may be used for any of the types of planning in § 931.33 as long as that planning is related to new or expanded energy facilities significantly affecting the coastal zone. This can include facilities far more speculative than those eligible for inclusion on the planning allotment inventory. The only type of energy-related planning not allowable is very general or state-wide energy planning having no relation to new or expanded energy facilities significantly affecting the coastal zone.

The same commentator suggested that the allotment process be expanded to include the potential environmental effects on one State of effects from a new or expanded energy facility (e.g., tanker traffic from OCS activity) in a nearby State. OCZM believes it is not feasible to include this effect in the allotment formula because there is no accurate way to measure it

and, therefore, no fair way to include it. Nevertheless, a State can use its planning funds to plan for such environmental effects even though the effect was not included on the inventory upon which the allotment was based.

SUBPART E—FINANCING PUBLIC FACILITIES AND PUBLIC SERVICES

The major changes in this subpart since the January 5, 1977, interim-final regulations are as follows:

(1) The concept of a loan/guarantee agreement has been amplified. It is now explicit that the award of repayment assistance will not and cannot be a purely discretionary action by the Associate Administrator. The agreement will contain clear conditions, agreed upon in advance by the borrower and OCZM, under which the Associate Administrator will authorize repayment assistance. The insertion of this language is intended to bolster OCZM's commitment to reducing the risk to State and communities inherent in building the new infrastructure required by coastal energy activity.

(2) The words "new or expanded" have been removed from before "coastal energy activity" in those sections dealing with the use of credit assistance funds under section 308(d). It had been OCZM's interpretation of the legislative history and the statute that credit assistance was intended to be used to deal with the effects of only "new or expanded" coastal energy activity. But, because the statute and legislative history are not entirely clear on the matter, and because several comments requested an expansion in the scope of the credit assistance, OCZM has decided to specify in these final regulations that credit assistance may be used to build new or improved public facilities required as a result of coastal energy activity.

It should be noted that this issue was the subject of substantial comment at the time of the November 22, 1976, proposed regulations and of the January 5, 1977, interim-final regulations. The preambles to both these documents discussed the issue in detail.

(3) The definition of "unavailable" has been changed to recognize that credit assistance is "unavailable" when a borrower clearly is unable to amortize fully a loan or guaranteed obligation. This means that the State could requisition the proceeds of its formula grant to assist the borrower in conjunction with a loan or guarantee to construct a public facility required as a direct result of new or expanded OCS energy activity. This change adds significantly to the flexibility of the program.

This issue was also the subject of considerable comment at the time of the earlier regulations. OCZM then

held the position that a definition of unavailability that permitted case-by-case determination of need was not appropriate or fully in keeping with the philosophy of the program or its legislative intent. Since publication of the interim-final regulations, however, OCZM has gained experience in implementing the program. OCZM now feels that the flexibility of this amended definition of unavailability is critical to the success of the CEIP in meeting the needs of those communities—often the most severely impacted—that clearly cannot repay a loan or guaranteed obligation without drastically increased taxes or other hardships to the pre-impact population.

(4) The definition of a "public facility" in § 931.42(a) was broadened by including, under "environmental protection," land acquisition for environmental protection and facilities and equipment to prevent or control erosion. The definition was also broadened under "recreation" by the inclusion of the acquisition of parkland or beaches or public access to parkland or beaches.

Comments: One commentator requested that "beaches" be added to § 931.42(a)(6); the comment, as noted above, was incorporated. The same commentator suggested that "rail electrification systems" be added to the list of public facilities. This suggestion was not adopted, since such electrification projects would not likely serve new population resulting from coastal energy activity. Mass transit that is required by coastal energy activity is already covered in § 931.42(a)(7).

Another commentator objected to the inclusion in § 931.42(a) of "electric generating plants and distribution systems," arguing that such plants and systems are not explicitly mentioned in the statute and thus can be considered a public facility only upon a finding that they serve new population. As the commentator points out, the CZMA does not limit public facilities eligible for CEIP assistance to those enumerated in the statutory definition, and provides for the inclusion of other eligible facilities which the Secretary finds will support increased population. The inclusion of electric generating plants and distribution systems in the definition of "public facility" that appears in these regulations represents the determination of the Associate Administrator, under authority delegated to him by the Secretary, that these types of facilities will support increased population.

Another commentator asked that the definition of "new or improved public facility" remove any reference to serving new employment or new population. This comment was adopted, since the definition is intended only to refer to a point in time.

The same commentator suggested that § 931.42(e) define the term "re-

quired as a result of coastal energy activity" rather than the term "required as a result of new or expanded coastal energy activity." As noted above, the definition was changed accordingly.

The same commentator suggested that credit assistance be defined as "unavailable" in § 931.42(g) when the Associate Administrator declines to give a loan for a facility or service or if the State has used all of the credit assistance allotted to it. The definition in § 931.42(g) was modified substantially, as noted above.

Another commentator had several concerns about the allotment procedure in § 931.46. The commentator suggested that the "need factor" approach to allotment could occasionally result in less money being allotted than was appropriated for credit assistance (if the sum of all the state need factors is less than the amount appropriated). The commentator suggested that it be made clear that all moneys appropriated would always be allotted. Section 308(e) of the Act states the criteria on which the allotment is to be based. OCZM is limited by the statute to using a formula based on the factors specified in section 308(e)(1) (A) and (B), and use of these factors may not always result in an amount allotted identical to the amount appropriated. Should moneys be appropriated but not allotted in a given year, they would remain in the Fund and be allotted in subsequent years as needed.

The same commentator was concerned that the States be allowed to review the calculation of need factors, and that the State be given more information on how new or expanded OCS energy activities are to be identified and included in the allotment. Section 931.46(d) specifies that OCZM will provide the States each year the relevant data and procedures on which the allotment is based. The States will have 45 days to review and comment on these data and procedures before the allotment is made.

The same commentator asserted that the allotment procedures do not recognize that new population—and therefore new demand for public facilities and services—can be drawn into one State by a coastal energy activity in another State. Section 931.46(d)(4) states that OCZM will estimate the new employees and related new population expected to "reside in each coastal State." This could include employees and population from coastal energy activities in nearby States. A State should bring such cases to OCZM's attention, along with adequate documentation, during the 45-day comment period.

One commentator stated that the CEIP would impose significant administrative costs on States, and that the regulations are not clear on how these

costs can be met. Section 931.33(a)(3)(iii) makes it clear that funds for administration of the CEIP are available under both sections 308(c) and 308(b) of the Act.

One commentator objected to the removal of a phrase that had appeared in the October 22, 1976, proposed regulations stating that OCZM believes that such a restriction would be unwise until more experience has been gained in processing requisitions. OCZM retains, however, a firm commitment to the speedy processing of applications and requisitions.

The largest number of comments on Subpart E were in regard to the interest rate described in § 931.50(a). Most of these comments stated that the interest rate specified in § 931.50(a) was too high to provide necessary financial assistance on reasonable terms. Other comments requested clarification of what special circumstances would cause a lower interest rate. We have responded to these comments by requesting a review of the issue by the Office of Management and Budget. OCZM's request contains the recommendation for a lower interest rate to apply to potential borrowers. Pending the outcome of this review, OCZM has retained in the regulations both the language of the statute, which simply states what the maximum interest rate can be on 308(d)(1) loans, and the authority to approve lower interest rates under special circumstances.

SUBPART F—REPAYMENT ASSISTANCE

The major changes in this subpart involve the simplification and clarification of language. The substantive aspects of these changes can be described in two ways.

(1) The final regulations reflect redefinition of and decreased reliance on fiscal schedules as a determinant of a borrower's eligibility for repayment assistance. The fiscal schedule—a set of projections or forecasts examining the fiscal condition of a borrower with and without the effects of a coastal energy activity—is now viewed as one tool of fiscal analysis developed and used by OCZM. By trying the criteria for the availability of repayment assistance to the loan or guarantee agreement rather than to these fiscal schedules, the regulations now provide greater flexibility in OCZM's ability to tailor assistance to the needs of individual borrowers.

(2) The concept of a loan or guarantee agreement has been strengthened to make clear that the OCZM's discretion in the award of repayment assistance will be constrained by the terms and conditions agreed to by the borrower and the Associate Administrator in advance of the loan or guarantee award. This provision will help insure that the Federal Government will share with coastal States and commu-

nities the risk inherent in building the public facilities and providing the public services needed because of coastal energy activity. The regulations clearly specify that the borrower will know the conditions upon which repayment assistance will be available before taking out the loan or guaranteed obligation and will not have to rely on the future judgment of Federal officials.

Comments: One commentator stated that the requirement for periodic updating of financial information will impose costs on the States and local governments. This requirement was not changed, however, since administrative costs can be paid for from the State's allotment of planning funds, under either section 308(c) or 308(b).

SUBPART G—GRANTS FOR UNAVOIDABLE LOSSES OF COASTAL ENVIRONMENTAL AND RECREATIONAL RESOURCES

The major changes in this subpart involved clarification of language in several sections. No substantive changes were made.

Comments: A number of commentators asked for amplification of the definition of "unavoidable" in § 931.72. In response, the definition has been expanded and restructured.

Another commentator objected to the inclusion of "air or water quality" as an "environmental resource" in § 931.72(b) because "air and water quality are protected from significant degradation under Federal Clean Air and Water Pollution Control Acts; therefore, any change in air or water quality authorized under those Acts does not create a compensable 'loss.'" This comment speaks to the unavoidability of certain types of losses, not to whether a degradation of air or water quality is an environmental loss. Certainly any degradation of air or water quality that involves a continuing violation of Federal pollution laws would not be declared "unavoidable." But, since it is conceivable that CEIP funds could be used effectively to plan for, to monitor, or to design prevention strategies involving such degradation, § 931.72(b) remains unchanged.

One commentator objected to the restriction in § 931.72(d) that, to be considered a recreational resource, an area must have been "designated under a State's approved coastal zone management program as an area of particular concern or potential use for recreational purposes" if the area in question had not already been in use for recreational purposes. The restriction was necessary to enable OCZM to distinguish objectively, for administrative purposes, between a recreational resource and an environmental resource.

A number of commentators asked for further clarification and amplification of § 931.74, which describes the

uses to which environmental/recreational grants can be put. This section was expanded accordingly.

Another commentator suggested specifically that § 931.74 states clearly that grants are available to prevent, reduce, or ameliorate losses that result from coastal energy activity—regardless of when that energy activity occurred. This comment was incorporated.

The same commentator suggested that § 931.79(d), which limits the use of grants to prevent, reduce, or ameliorate a loss by means of a public facility, be modified from facilities of the types specified in § 931.42(a) to facilities "eligible for funding under Subpart E". This comment was also accepted.

SUBPART H—LATERAL SEAWARD BOUNDARIES

Upon analysis by NOAA of the interim-final regulations for this subpart, it was determined that references to lateral seaward boundaries of States extending to "the outer limit of the territorial sea" was not the most appropriate terminology. This terminology has been replaced by the phrase "a State's seaward boundary," which is derived from the Submerged Lands Act.

Since the effective date of the interim-final regulations is now established, references to dates in this subpart which are tied to the effective date have been replaced by specific dates.

Review of this subpart by NOAA also revealed a failure to recognize a distinction in the language between paragraphs 308(b)(3)(B) (i) and (ii) of the Act. Paragraph (ii) provides for delimitation of lateral seaward boundaries if no such boundaries "or any portion thereof" have been clearly defined or fixed; paragraph (i) does not refer to "portions" of boundaries. The statute thus would authorize a delimitation line to be based on a "portion" of a lateral seaward boundary established by an interstate compact, agreement, or judicial decision as of July 26, 1976 (the date of enactment of the statute) only if such portion of a lateral seaward boundary has been clearly defined or fixed by that time, and to the extent that the principles used were applicable. It has been suggested that the clause "to the extent that such principles are applicable" should be deleted from this provision, but to retain it reflects more clearly the effect of the statute.

Comments. One commentator pointed out that the regulations failed to take into account the fact that paragraph 308(b)(3)(B)(iii), pertaining to lateral seaward boundaries defined or fixed by States after July 26, 1977, unlike paragraphs (i) and (ii), does not refer to such boundaries established by judicial decision. Therefore, in

order to more closely follow the provisions of the statute and the intent of Congress, the regulations have been revised to provide only for the adoption of principles used in inter-State compacts or agreements entered into or amended by coastal States after July 26, 1976, as the basis for establishment or revision of a delimitation line through the Outer Continental Shelf by the Associate Administrator. However, language was inserted that if, after July 26, 1976, a judicial decision were rendered that clearly defined or fixed a lateral seaward boundary, such a decision may also be used by the Associate Administrator in establishing a line of delimitation.

Another commentator suggested that references in the regulations to the principle of equidistance should be dropped so as to avoid any implication of a preference for this principle over another applicable principle. This has been done.

In response to another comment, the regulations have been amended to emphasize that a uniform procedure is provided for any principle requiring measurement from a baseline. That baseline will be the intersection of the National Ocean Survey (NOS) low water datum of reference with the land, as described and published by the NOS on large scale nautical charts of the area, as modified by the application of the principles of the Convention on the Territorial Sea and the Contiguous Zone, as interpreted by the Ad Hoc Committee on U.S. Coastline Delimitation.

A commentator also suggested that the six-month period for States to define or delimit a lateral boundary be allowed to run from the effective date of the final regulations as opposed to the interim-final regulations. In response, an optional period of an additional six months has been authorized, if the Governors of the States concerned each request such an extension.

Another commentator expressed concern over the improper discretion implied in the statement in one portion of the regulations that the Associate Administrator will establish the required delimitation lines. Thus, language following that of the statute has been inserted in the regulations to emphasize that, if the Associate Administrator is to establish the required delimitation lines in the absence of prior definition or delimitation, it will be according to the applicable principles of law.

A commentator also suggested that, if the lateral seaward boundary is a matter in litigation prior to the time of delimitation by the Associate Administrator, it would be appropriate to defer such delimitation until a final judicial decision is rendered. Language has been inserted providing discretion

to the Associate Administrator to so defer such delimitation under such circumstances.

Another commentator suggested specifying that, when measurement from a baseline is used, the baseline on NOS charts would apply, except where fixed by judicial decree, in order to clarify that a different official legal baseline may in fact be fixed by judicial decree. However, since the modification and interpretation by the Ad Hoc Committee mentioned above includes consideration of applicable judicial decrees, this additional language is unnecessary. The regulations also emphasize that the uniform procedures to be used when delimitation lines established by the Associate Administrator are based on measurement from a baseline include the provisions that such delimitation lines shall be delineated by the NOS.

Finally, several changes have been made with respect to impoundment of funds for disputed areas. To avoid potential differences over the exact area in dispute, a provision has been inserted clarifying that the Associate Administrator will determine such areas. Also, in response to one suggestion, the regulations now specify that the funds will be impounded in the Treasury of the United States. Furthermore, it was recognized that disputes also could exist over areas between the Federal Government and a State. The regulations thus have been revised to provide for impoundments of funds based on these areas as well.

SUBPART I—GENERAL PROVISIONS

The major change in this subpart was the inclusion of capitalized interest during construction, capitalized interest during development, and development expense as allowable costs under the credit assistance provisions of the CEIP.

The inclusion of interest and developmental costs as a part of the loan will provide a reserve base to meet debt service requirements. This will provide greater financial stability to the project in the early years of the loan and thus reduce substantially the potential need for repayment assistance.

All other changes in this subpart were technical in nature.

SUBPART J—INTRASTATE ALLOCATION OF FINANCIAL ASSISTANCE

The significant changes in this subpart since the publication of January 5, 1977, interim-final regulation are as follows:

(1) Provision has been made for a State to initiate a revision of its intrastate allocation process.

(2) Thresholds for the requirement of a preapproved intrastate allocation process have been established at \$250,000 in grants or \$2 million in credit assistance.

(3) The number of criteria/requirements for an approved process have been reduced from 12 to 8.

(4) Simplified requirements have been established for States that fall below the thresholds.

(5) An interim process for applications submitted before October 1, 1977, has been included.

A final environmental impact statement was prepared to accompany the interim-final regulations and was made available to the public on December 30, 1976. A supplement to this statement was made available on January 5, 1977. The supplement has been revised in light of changes made in the regulations since the publication of the interim-final regulations. This revised supplement is being made available to the public concurrent with the publication of these final regulations.

NOTE.—The National Oceanic and Atmospheric Administration has prepared Circular A-107 under Executive Order 11821 and OMB certifies that an inflationary impact statement has been prepared for regulations implementing the coastal energy impact program.

RICHARD A. FRANK,
Administrator, National Oceanic
and Atmospheric Administration.

FEBRUARY 10, 1978.

In consideration of the foregoing,
Part 931 is issued as follows:

Subpart A—Objectives

- Sec.
- 931.1 Overall objectives.
- 931.2 Planning grants.
- 931.3 Public facilities and public services assistance.
- 931.4 Repayment assistance.
- 931.5 Environmental and recreational grants.

Subpart B—General Definitions

- 931.9 Index to definitions.
- 931.10 Act.
- 931.11 Coastal zone.
- 931.12 Fund.
- 931.13 Coastal energy activity.
- 931.14 Significantly affected.
- 931.15 New or expanded coastal energy activity.
- 931.16 Outer Continental Shelf.
- 931.17 Outer Continental Shelf energy activity.
- 931.18 New or expanded Outer Continental Shelf energy activity.
- 931.19 Energy facility.
- 931.20 New or expanded energy facility.
- 931.21 [Reserved].
- 931.22 Unit of general purpose local government and unit of local government.
- 931.23 NOAA and OCZM.
- 931.24 Associate Administrator.

Subpart C—Basic Eligibility

- 931.25 Eligibility requirements.
- 931.26 Designation of State agencies.

Subpart D—Planning for the Consequences of Energy Facilities

- 931.30 General.

- Sec.
- 931.31 Objectives.
- 931.32 Definitions.
- 931.33 Purposes.
- 931.34 Sources.
- 931.35 Eligibility.
- 931.36 Allotment of financial assistance among eligible coastal States.
- 931.37 Application procedure.
- 931.38 Limitations.

Subpart E—Financing Public Facilities and Public Services

- 931.40 General.
- 931.41 Objectives.
- 931.42 Definitions.
- 931.43 Purposes.
- 931.44 Sources.
- 931.45 Eligibility.
- 931.46 Allotment of section 308(d) (1) and (2) credit assistance among coastal States.
- 931.47 Allotment of section 308(b) formula grants.
- 931.48 Application and requisition procedures.
- 931.49 [Reserved].
- 931.50 Special requirements of section 308(d)(1) loans.
- 931.51 Special requirements for section 308(d)(2) Federal guarantees.

Subpart F—Repayment Assistance

- 931.60 General.
- 931.61 Objectives.
- 931.62 Definitions.
- 931.63 Purposes.
- 931.64 Sources of repayment assistance.
- 931.65 General eligibility.
- 931.66 Application update.
- 931.67 Review for repayment assistance.
- 931.68 Award of repayment assistance.
- 931.69 Appeal procedure.

Subpart G—Grants for Unavoidable Losses of Coastal Environmental and Recreational Resources

- 931.70 General.
- 931.71 Objectives.
- 931.72 Definitions.
- 931.73 Sources.
- 931.74 Purposes.
- 931.75 Eligibility.
- 931.76 Allotment of formula grants (section 308(b)).
- 931.77 Allotment from the Fund (section 308(d)(4)).
- 931.78 Requisition and application procedures.
- 931.79 Limitations.

Subpart H—Lateral Seaward Boundaries

- 931.80 General.
- 931.81 Establishment of delimitation lines when agreements exist between States.
- 931.82 Establishment of demarcation lines when no agreement exists between States.
- 931.83 Establishment of delimitation lines under later compacts, agreements, or judicial decisions.
- 931.84 Procedures for defining delimitation lines by equidistance principles.
- 931.85 Formula grants impounded for disputed areas.

Subpart I—General Provisions

- 931.90 Allowable costs.
- 931.91 Administrative procedures.
- 931.92 Compliance with OMB Circular A-95 requirements.

Sec.
931.93 Other Federal requirements.
931.94 Environmental Impact Statements.
931.95 Records.
931.96 Audit.
931.97 Recovery of funds.
931.98 Coordination with other Federal agencies.

Subpart J—Intrastate Allocation of Financial Assistance

931.110 General.
931.111 Objective.
931.112 Process required for intra-State allocations.
931.113 Forms of assistance.
931.114 Review and appeal.

AUTHORITY: Sec. 308, Coastal Zone Management Act of 1972 (Pub. L. 92-583, 86 Stat. 1280, 15 U.S.C. 1451 et seq.), as amended by Pub. L. 94-370 (90 Stat. 1013).

Subpart A—Objectives

§ 931.1 Overall objectives.

(a) The central objective of the Coastal Energy Impact Program (CEIP) established under section 308 of the Act is to provide coastal States and units of local government with financial assistance to mitigate the adverse on-shore effects of new or expanded coastal energy activity.

(b) A second objective of the CEIP is to strike a balance between two major national goals:

(1) To encourage development of domestic energy resources and thus to further the objective of increase energy self-sufficiency; and

(2) To protect and manage the Nation's coasts in a manner consistent with the coastal zone management programs and objectives of the individual States over both the short and the long term.

(c) A third objective of the CEIP is to provide assistance that is simple to administer and that permits the coastal States and units of local government a high degree of control and discretion.

§ 931.2 Planning grants.

The objective of providing planning assistance under the CEIP is to encourage rational, timely, and thorough planning for and management of the consequences in the coastal zone of energy facility siting and energy resource development.

§ 931.3 Public facilities and public services assistance.

The objectives of providing assistance under the CEIP for public facilities and public services are:

(a) To advance the national goal of attaining a greater degree of energy self sufficiency by providing assistance to meet those State and local needs for public facilities and services resulting from new or expanded coastal energy activity; and

(b) To discourage inappropriate development in the coastal zone by cre-

ating incentives to provide only those public facilities and public services actually needed because of new or expanded coastal energy activity.

§ 931.4 Repayment assistance.

The objective of providing repayment assistance under the CEIP is to shift to the Federal Government most of the risk of fiscal loss that might be borne by coastal States and units of general purpose local government in whose jurisdictions new or expanded coastal energy activity is expected to take place.

§ 931.5 Environmental and recreational grants.

The objectives of providing assistance under the CEIP for the prevention, reduction, or amelioration of unavoidable losses of valuable environmental or recreational resources are:

(a) To help coastal States and units of local government prevent, reduce, or ameliorate environmental degradation and recreational losses in the coastal zone when the degradation or losses are the unavoidable result of coastal energy activity; and

(b) To encourage the prevention of environmental or recreational losses by providing assistance only when the losses cannot be attributed to or charged against a specific person or persons.

Subpart B—General Definitions

§ 931.9 Index to definitions.

The following listing includes all terms defined in Part 931 of this title keyed to the section or paragraph where they are defined.

Term	Section
Act.....	931.10(a)
Associate Administrator.....	931.24
Borrower.....	931.62
Coastal energy activity.....	931.13
Coastal zone.....	931.11
Eligible energy facility.....	931.32
Energy facility.....	931.19
Energy facility directly required by OCS energy activity.....	931.17(b)
Environmental resource.....	931.72(c)
First landed.....	931.72(g)
Fiscal schedule.....	931.48(b)(2)
Fund.....	931.12
In close proximity to.....	931.13(d)
Joint funding.....	931.98(b)(1)
Loss.....	931.72(b)
New employment.....	931.72(f)
New or expanded coastal energy activity.....	931.15
New or expanded energy facility.....	931.20
New or expanded OCS energy activity.....	931.18
New or improved public facility.....	931.42(c)
New or improved public service.....	931.42(d)
NOAA.....	931.23
OCZM.....	931.23
Outer Continental Shelf.....	931.16
Outer Continental Shelf energy activity.....	931.17
Person.....	931.72(h)
Public facility.....	931.42(a)
Public service.....	931.42(b)
Public facilities and services required as a result of coastal energy activity.....	931.42(e)
Public facilities and services required as a direct result of OCS energy activities.....	931.42(f)

Term	Section
Recreational resource.....	931.72(d)
Section.....	931.10(b)
Significantly affected.....	931.14
Unavailability of credit assistance.....	931.42(g)
Unavoidable.....	931.72(a)
Unit of general purpose local government and unit of local government.....	931.22
Valuable.....	931.72(e)

§ 931.10 Act.

(a) The term "Act" means the Coastal Zone Management Act of 1972, Pub. L. 92-583, 86 Stat. 1280, as amended by Pub. L. 93-612, 88 Stat. 1974, and by Pub. L. 94-370, 90 Stat. 1013 (16 U.S.C. 1451 et seq.).

(b) The term "section" means a section of the Coastal Zone Management Act of 1972, as amended.

§ 931.11 Coastal zone.

The term "coastal zone" is that area of land and water whose boundaries are determined by a State under § 920.11 of this chapter for purposes of the development of a coastal zone management program under section 305, or under § 923.11 of this chapter for purposes of administering a coastal zone management program under section 306, or as part of a management program which is consistent with the policies set forth in section 303. Such boundaries must be approved by the Associate Administrator.

§ 931.12 Fund.

The term "Fund" means the Coastal Energy Impact Fund established under section 308(h).

§ 931.13 Coastal energy activity.

(a) The term "coastal energy activity" is limited to the following activities:

(1) Any Outer Continental Shelf energy activity;

(2) Any transportation, conversion, treatment, transfer, or storage of liquefied natural gas; or

(3) Any transportation, transfer, or storage of oil, natural gas, or coal (including, but not limited to, by means of any deepwater port, as defined in section 3(10) of the Deepwater Ports Act of 1974 (33 U.S.C. 1502(10)).

(b) An activity is a "coastal energy activity" only to the extent that:

(1) The conduct, support, or facilitation of such activity requires and involves the siting, construction, expansion, or operation of any equipment or facility; and

(2) The Associate Administrator determines that a technical requirement exists which necessitates that such siting, construction, expansion, or operation be carried out in, or in close proximity to, the coastal zone of any coastal State.

(c) Such technical requirements are limited to:

- (1) Dependency on coastal waters;
- (2) Safety;

- (3) Proximity to oil or natural gas fields;
- (4) Location of markets;
- (5) Federal siting regulations or decisions;
- (6) Type and amount of required land; and
- (7) Competitive uses for any environmental or recreational resource affected by such siting, construction, expansion, or operation.

Comment: For each energy facility some of the above technical requirements will be significant and some not. Several examples might clarify this point.

Platform construction yards are usually located close to deep coastal waters, because deep water (20 ft. to 200 ft.) is used during different construction phases. Furthermore, such yards require about 20 acres of flat land for the construction of concrete platforms, and up to 1000 acres for the construction of steel platforms.

Service bases are also located close to coastal waters, because several thousand tons of supplies are transferred each month by vessels between the service bases and the platforms. For the same reason service bases have to be located close to oil and gas fields.

The location of some LNG facilities will be influenced by safety standards prevalent in the area. The location of LNG regasification facilities might be influenced by the location of the closest markets for natural gas.

Finally, the direction of a pipeline might be determined by the location of the oil fields and the closest refinery.

(d) The siting, construction, expansion, or operation of any equipment or facility shall be "in close proximity to" the coastal zone of any coastal State if such coastal zone has been or is likely to be significantly affected by such siting, construction, expansion, or operation.

§ 931.14 Significantly affected.

The coastal zone of a coastal State is "significantly affected" by the siting, construction, expansion, or operation of an energy facility if such siting, construction, expansion, or operation:

- (a) Causes population influxes in the coastal zone;
- (b) Changes employment patterns in the coastal zone, including those in fishing and tourism;
- (c) Makes necessary new or improved public facilities or public services in the coastal zone;
- (d) Damages or threatens to damage any valuable environmental or recreational resources in the coastal zone, including degradation of air or water quality, or potential violation of air or water quality standards; or
- (e) Increases or threatens to increase significantly risks to public safety and real property in or near navigational corridors or marine or land terminals and facilities in the coastal zone.

§ 931.15 New or expanded coastal energy activity.

The term "new or expanded coastal energy activity" means any coastal

energy activity if the siting, construction, expansion, initial operation, or replacement, in whole or in part, of any equipment or facility required by the conduct, support, or facilitation of such activity takes place after July 26, 1976.

Comment: The term "expansion" is intended to include both the physical expansion of a facility itself and the expansion of the output of the facility. The term "initial operation" is intended to include the case in which a previously operating but then idle energy facility is reactivated after July 26, 1976.)

§ 931.16 Outer Continental Shelf.

The term "Outer Continental Shelf" or "OCS" means all submerged lands lying seaward and outside of the area of lands beneath navigable waters, as defined in 43 U.S.C. 1301, and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control.

§ 931.17 Outer Continental Shelf energy activity.

(a) The term "Outer Continental Shelf energy activity" means any exploration for, or any development or production of, oil or natural gas from the Outer Continental Shelf; or the siting, construction, expansion, or operation of any new or expanded energy facilities that are directly required by such exploration, development, or production.

(b) The term "directly required" refers to any new or expanded energy facilities that have technical requirements which necessitate their location in, or in close proximity to, the coastal zone and are:

- (1) Publicly owned transportation systems to the extent that they serve Outer Continental Shelf energy activities;
- (2) Owned or operated by OCS lessees or their contractors, subcontractors, or principal suppliers of equipment or facilities. Such equipment and facilities include and are limited to:
 - (i) Exploratory and development drilling rigs;
 - (ii) Platforms, subsea completions, and subsea production systems;
 - (iii) The following components of marine pipeline systems:
 - (A) Pressure source,
 - (B) Gathering lines,
 - (C) Pipelines,
 - (D) Intermediate pressure boosting facilities, and
 - (E) Landfall sites;
 - (iv) The following facilities to the extent that they serve Outer Continental Shelf energy activities:
 - (A) Offshore storage and loading facilities of oil and gas,
 - (B) Marine terminals,
 - (C) Construction yards for platforms and exploration rigs,
 - (D) Pipe coating yards,

(E) Bases supporting platform and pipeline installation,

(F) Electric generating plants,

(G) Temporary service bases used in exploration phase,

(H) Permanent service bases used in development phase, and

(I) Transportation facilities limited to helicopters, heliports, tug boats, crew boats, supply boats, production utility boats, ocean and seismic vessels, barges, "spread" vessels, workover rigs, diving tenders, and drilling tenders; or

(3) Determined by the Associate Administrator to be directly required by OCS exploration, development, or production.

§ 931.18 New or expanded Outer Continental Shelf energy activity.

The term "new or expanded Outer Continental Shelf energy activity" means:

(a) Any Outer Continental Shelf energy activity which supports exploration, development, or production according to plans, amendments to plans, or notices to drill approved or issued by the U.S. Department of the Interior after July 26, 1976; or

(b) The siting, construction, expansion, or operation of any new or expanded energy facilities that are directly required by exploration, development, or production of oil and gas from the Outer Continental Shelf.

§ 931.19 Energy facility.

(a) The term "energy facility" means any equipment or facility which is or will be used primarily:

(1) In the exploration for, or the development, production, conversion, storage, transfer, processing, or transportation of, any energy resource; or

(2) For the manufacture, production, or assembly of equipment, machinery, products, or devices which are involved in the activities described in paragraph (a)(1) of this section.

(b) The term includes:

(1) Electric generating plants, including those involving fossil or biomass fuels, nuclear power, direct solar energy, ocean thermal energy conversion, tidal or wave power, wind power, or geothermal energy, and associated transmission systems;

(2) Petroleum refineries and associated facilities;

(3) Gasification plants;

(4) Facilities used for the transportation, conversion, treatment, transfer, or storage of liquefied natural gas;

(5) Uranium enrichment or nuclear fuel processing facilities;

(6) Facilities to separate oil, water, and gas;

(7) Drilling rigs, platforms, subsea completions, and subsea production systems;

(8) Construction yards for platforms and exploration rigs, pipe coating yards, bases supporting platforms and

pipeline installation, and crew and supply bases;

(9) Oil and gas storage facilities, including salt domes;

(10) Marine pipeline systems, including pressure source, gathering lines, pipeline, intermediate pressure boosting facilities, and landfall sites;

(11) Oil and gas processing facilities; (12) Transportation systems for tankers or the vessels described in § 931.17(b)(2)(iv)(I) or to connect any of the facilities in this section with primary transportation systems;

(13) Facilities, including deepwater ports, for the transfer of petroleum;

(14) Facilities for geopressurized gas; and

(15) Terminals which are associated with any of the foregoing.

§ 931.20 New or expanded energy facility.

The term "new or expanded energy facility" refers to an energy facility whose siting, construction, expansion, initial operation, or replacement, in whole or in part, takes place after July 26, 1976.

§ 931.21 [Reserved]

§ 931.22 Unit of general purpose local government and unit of local government.

(a) The term "unit of general purpose local government" means:

(1) Any political subdivision of any coastal State that (in whole or in part) is located in or has authority over such State's coastal zone; or

(2) Any political subdivision of any coastal State that is located within a political subdivision of such coastal State that (in whole or in part) is located in or has authority over such State's coastal zone; or

(3) Any special entity created by such coastal State or political subdivision that (in whole or in part) is located in or has authority over such State's coastal zone.

(b) The term "unit of general purpose local government" is limited to those entities described in paragraph (a) of this section that:

(1) Have authority to levy taxes or establish and collect user fees; and

(2) Provide any public facility or public service that is financed in whole or in part by taxes or user fees.

(c) The term "unit of local government" means any unit of general purpose local government, as defined in paragraphs (a) and (b) of this section, or any agency recognized or designated as an areawide or regional comprehensive planning and development agency pursuant to Office of Management and Budget Circular A-95, under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, or under Title IV of the Intergovernmental Cooperation Act of 1968.

§ 931.23 NOAA and OCZM.

(a) The acronym "NOAA" means the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

(b) The acronym "OCZM" means the Office of Coastal Zone Management of the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

§ 931.24 Associate Administrator.

The term "Associate Administrator" means the Associate Administrator for Coastal Zone Management, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

Subpart C—Basic Eligibility

§ 931.25 Eligibility requirements.

(a) No coastal State is eligible for an allotment or to receive any financial assistance under this part unless such State: (1) Has a management program which has been approved under section 306; or

(2) Is receiving a grant under sections 305 (c) or (d); or

(3) Is making, in the judgment of the Associate Administrator, satisfactory progress toward the development of a management program which is consistent with the policies set forth in section 303.

(b) The Associate Administrator shall judge that a State is making satisfactory progress toward the development of a management program consistent with the policies set forth in section 303 if one of the following conditions is met:

(1) A coastal State has exhausted its eligibility for program development funding under section 305 without achieving program implementation approval under section 306, but is still pursuing development and implementation of a management program consistent with the policies set forth in section 303; or

(2) A coastal State's eligibility for program funding under section 305 or section 306 has been suspended, but the State is making adequate efforts to reacquire eligibility under sections 305 or 306 and is still pursuing development of a management program consistent with the policies set forth in section 303; or

(3) A coastal State is otherwise pursuing a comprehensive management program which is consistent with the policies set forth in section 303 and for good cause shown is not developing or implementing such program under sections 305 or 306.

(c) The phrase "consistent with the policies set forth in section 303" refers to a management program which incorporates:

(1) Policies which provide for the preservation, protection, development, and, where possible, the restoration or

enhancement of the resources of the State's coastal zone;

(2) Provisions which insure wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values, as well as to needs for economic development. Such provisions shall include, but are not limited to:

(i) Identification of a coastal zone which is capable of being delineated and which is subject to management under the program;

(ii) Identification of permissible land and water uses for the area within the coastal zone;

(iii) Procedures for assuring that land and water uses of regional and national benefit are not arbitrarily restricted or excluded in policies or management mechanisms developed pursuant to the State's program;

(iv) State and local legal authorities and organizational structures sufficient to effectuate management over identified land and water uses within the coastal zone; and

(v) Coastal zone water pollution and air pollution control mechanisms which are consistent with the requirements of the Federal Water Pollution Control Act, as amended, and the Clean Air Act, as amended;

(3) An opportunity for Federal agencies having interests affecting the State's coastal zone to participate in the development of the State's management program and have their views adequately considered; and

(4) An opportunity for local governments, State and regional agencies, commercial and industrial groups, and the general public to participate in the development of the State's management program and have their views adequately considered.

(d) Before allotting assistance to a coastal State and before awarding any of such allotted funds to a coastal State, the Associate Administrator will determine whether that State is eligible (as described in paragraph (a) of this section) for section 308 assistance. If the Associate Administrator determines that the State is not eligible, no moneys will be allotted to the State, and all previously allotted moneys not already awarded to the State or to units of local government within the State will be impounded in the Treasury of the United States by the Associate Administrator. If, after one year from the date the State was determined to be ineligible, the State has not regained eligibility in the determination of the Associate Administrator, he/she will allot the impounded moneys among eligible States according to the most recent annual allotment factors for section 308 assistance.

§ 931.26 Designation of State agencies.

(a) In order to receive any financial assistance under this part the Govern-

nor of a coastal State must designate a State agency or agencies;

(1) To apply for or requisition grant assistance and to submit applications for credit assistance under section 308;

(2) To assure, to the maximum extent practicable, that financial assistance provided under section 308 is apportioned, allocated, and granted to units of local government within such State on a basis which is proportional to the extent to which such units need such assistance; and

(3) To receive and administer section 305 grants pursuant to § 920.42 of this chapter, to receive and administer section 306 grants pursuant to § 923.23 of this chapter, or to administer a State coastal management program which is consistent with the policies set forth in section 303.

(i) In the event the coastal State is implementing a management program approved under section 306, all applications and requisitions for financial assistance under section 308 shall be reviewed for consistency with the State's management program by the State agency administering the State's coastal management program in accordance with the requirements of section 307(d).

(ii) In the event the coastal State is developing a management program pursuant to section 305 or in a manner consistent with the policies of section 303, all applications and requisitions for financial assistance under section 308 shall be reviewed for compatibility with the State's developing coastal management program by the State agency developing the management program.

(b) While preferable in terms of coordination, it is not required that a single State agency perform all three functions stated in subsection (a) of this section. The State coastal zone management agency designated pursuant to paragraph (a)(3) need not be the agency performing one or both of the functions required by paragraphs (a)(1) and (2) of this section. However, in the event different agencies are designated under paragraphs (a)(1), (2), and (3), one agency must be designated to assure coordination with the other agency or agencies.

Subpart D—Planning for the Consequences of Energy Facilities

§ 931.30 General.

This subpart sets forth policies and requirements for planning assistance to coastal States under sections 308(c) and 308(b). This subpart also states the overall objectives, the purposes for which the assistance may be used, and the basic eligibility requirements. It also describes procedures for allotting section 308(c) moneys among eligible coastal States, for applying for section 308(c) assistance, and for requisition-

ing the proceeds of section 308(b) grants. Procedures for the allotment of section 308(b) assistance are described in § 931.76.

§ 931.31 Objectives.

The objectives of assistance under this subpart are:

(a) To assist coastal States and units of local government in the study of an planning for any economic, social, or environmental consequence which has occurred, is occurring, or is likely to occur in such State's coastal zone as a result of the siting, construction, expansion, or operation of new or expanded energy facilities;

(b) To encourage rational, timely, and thorough planning for the management of energy facility siting and the impacts from energy resource development;

(c) To help coastal States and units of local government study, plan for, and manage the provision of public facilities and public services required as a direct result of new or expanded OCS energy activity; and

(d) To redefine, integrate, and apply to specific locations and energy facilities the energy planning and impact management process included in State coastal zone management programs pursuant to section 305(b)(8) of the Act.

§ 931.32 Definitions.

"Eligible energy facility" means a new or expanded energy facility that significantly affects the coastal zone; and

(a) For which a major State or Federal license or permit has been applied for;

(b) Which is projected to be required as a result of a Federal lease sale scheduled by the U.S. Department of the Interior to occur no more than three years from the date of the allotment of planning assistance under § 931.36; or

(c) Which the Associate Administrator determines to be eligible because of reasonable evidence supplied by the coastal State that such a new or expanded energy facility is likely to be sited, expanded, or constructed in the near future. Such evidence might include a local license or permit, a notice of intent, or a request for a zoning variance.

§ 931.33 Purposes.

(a) Allowable uses of section 308(c) grants under this subpart include:

(1) Planning for economic, social, or environmental consequences of new or expanded energy facilities, coastal energy activities, or OCS energy activities significantly affecting the coastal zone, including:

(i) Analysis of government or private industry siting, licensing, or leasing policies and related data and information;

(ii) Devising strategies for the public purchase of land or the establishment of other enforceable land-use controls for lands upon or near which energy development is to take place;

(iii) Devising methods of protecting environmental or recreational resources threatened by the siting, construction, operation, or expansion of new or expanded energy facilities; or

(iv) Conducting risk management studies, hazard analyses, emergency contingency planning and coordination studies, and assessments of mitigating measures for maintaining or improving public safety threatened by the siting, construction, expansion, or operation of new or expanded energy facilities.

(2) Planning for the consequences of a specific new or expanded energy facility significantly affecting the coastal zone, including:

(i) Study of and planning for economic, social, or environmental consequences of the siting, construction, expansion, or operation of a new or expanded energy facility such as:

(A) Increased population;

(B) Changes in employment patterns, including those in fishing and tourism;

(C) Changes in demand for public facilities, public services, and housing;

(D) Local price inflation;

(E) Changes in patterns of tax and user fee revenues or intergovernmental transfers;

(F) Effects of fishing, tourism, and other economic resources;

(G) Effects on beaches, and dunes, air quality, water quality, or other environmental or recreational resources;

(H) Shoreline erosion;

(I) Ecological effects; and

(J) Effects on public safety.

(ii) Conducting analyses required for state or local regulatory decisions related to energy facilities, including licenses, leases, permits, and zoning ordinances;

(iii) Performing cost/benefit analyses or otherwise comparing the consequences of alternative energy facility sites or types;

(iv) Devising strategies for recovering compensation from appropriate parties for any adverse effects caused by the energy facility involved;

(v) Forecasting employment, population, public facility and public services needs and costs, and tax or user-fee revenues;

(vi) Planning for the public facilities eligible for financing under Subpart E of this part, including engineering feasibility;

(vii) Study of and planning for the secondary consequences, including environmental and economic consequences, of alternative types and sites of public facilities eligible for financing under Subpart E of this part; and

(viii) Study of and planning for the consequences of the phasing out of energy facilities.

(3) Carrying out projects necessary to administer assistance under section 308, including:

(i) Collecting data and analyzing information required in §§ 931.48(a)(5) and 931.78(c)(4) for environmental impact assessment;

(ii) Designing and carrying out an intrastate allocation process as described in Subpart J of this part; and

(iii) Paying other reasonable costs of administering assistance under section 308.

(b) Allowable uses of section 308(b) grants under this subpart include:

(1) Those allowable uses given in paragraph (a) of this section if they are directly related to the provision of new or improved public facilities and public services required as a direct result of new or expanded OCS energy activity; and

(2) Architectural and engineering services for the design and construction of public facilities required as a direct result of new or expanded OCS energy activity.

(Comment: The use of section 308(c) planning assistance must be related to new or expanded energy facilities, coastal energy activities, or OCS energy activities significantly affecting the coastal zone. There is no requirement, however, that the use of the planning assistance be tied to the specific new or expanded energy facilities developed as part of the allotment inventory in § 931.36(b)(2)(ii).)

§ 931.34 Sources.

The primary source of assistance for the purposes set forth in § 931.33 is section 308(c) grants that have been allotted to eligible coastal States. If such moneys have been applied for and such moneys, plus the necessary matching share, are insufficient in any fiscal year for the purposes set forth in § 931.33(b)(1), section 308(b) grants that have been allotted according to § 931.76 become a source of assistance.

§ 931.35 Eligibility.

(a) To be eligible for allotments and assistance under sections 308(c) and 308(b)(4)(B), a coastal State must meet the basic eligibility requirements of § 931.25.

(b) To be eligible for the use of section 308(b) grants under this subpart, a coastal State must show that its allotment under section 308(c) is insufficient for the purposes of § 931.33(b)(1).

§ 931.36 Allotment of financial assistance among eligible coastal States.

(a) Moneys appropriated to the Fund in any fiscal year for the purposes of section 308(c) will be allotted by a formula among eligible coastal States according to the procedures of this subpart. Moneys allotted to a coastal State will remain available for award to such State until the end of the fiscal year following the fiscal

year in which the allotment took place. Allotted moneys not awarded to such State by that time will be returned to the Fund for reallocation among eligible coastal States. The Associate Administrator may extend the period of availability of an allotment if he/she determines that such an extension is warranted.

(b) The following general process will be used to allot section 308(c) moneys.

(1) The Associate Administrator will divide fifteen percent of available section 308(c) moneys equally among eligible coastal States.

(2) The remaining 85 percent of available section 308(c) moneys will be allotted on the basis of planning need equivalencies as follows:

(i) The Associate Administrator will establish standardized planning need factors for various types of energy facilities at various levels of output, taking into account relative regional variations in temporary and permanent employment, environmental effects, and safety considerations.

(ii) The Associate Administrator will draw up for each coastal State a list of eligible energy facilities. The Associate Administrator will update this list each fiscal year by adding those eligible energy facilities identified during that fiscal year and by removing those energy facilities for which planning is no longer required. The Associate Administrator will remove a facility from the list in a fiscal year:

(A) If the operating phase of the facility began before the date of allotment;

(B) If the facility has been on the list for the preceding 4 fiscal years (unless the Associate Administrator determines that planning is still necessary); or

(C) If the Associate Administrator otherwise determines that planning for the facility is no longer necessary.

(iii) Coastal States will be provided with these standardized planning need factors and with the list of facilities. The States will have 45 days to submit comments to the Associate Administrator who will consider the State comments and will make revisions as appropriate.

(Comment: The State comment period is intended to bring to OCSM's attention those energy facilities for which the State wishes to initiate planning but which were not included in the list. The State must present evidence that each facility it wishes to add is likely to be constructed. Examples, of facilities that might not be included on OCSM's list, but which might be brought to light during the comment period, include energy facilities whose construction is expected to resume (under an old permit) after a period of dormancy, and facilities whose character has changed in a way that does not demand a permit but nevertheless motivates renewed planning efforts.)

(iv) The Associate Administrator will then apply the standardized planning

need factors described in paragraph (b)(2)(i) of this section to the list described in paragraph (b)(2)(ii) of this section to obtain a total planning need equivalency for each coastal State. Each eligible coastal State's share of such remaining part of section 308(c) moneys will be proportional to the State's planning-need equivalency divided by the sum of the planning-need equivalencies of all the eligible coastal States.

(3) A coastal State's allotment of section 308(c) moneys will be the sum of the State's shares under paragraphs (b)(1) and (b)(2) of this section.

(c) Procedures for allotment of section 308(b) assistance are discussed in § 931.76.

§ 931.37 Application procedure.

(a) An eligible coastal State may submit its application to the Associate Administrator for award of the section 308(c) moneys allotted to it as soon as it is notified of the amount of the allotment. An eligible coastal State may requisition proceeds of grants allotted to it under section 308(b) as soon as it is notified of the amount of the allotment.

(b) Applications for amounts allotted for section 308(c) planning assistance or requisitions for the amount of funds to be used for section 308(b) planning assistance must contain the following certifications and information:

(1) A certification by the State agency designated under § 931.26(a)(2) that the planning assistance has been allocated within the State in accord with the intrastate allocation process described in subpart J of this part;

(2) A certification by the State agency designated under § 931.26(a)(3) that the planning assistance will be used in a manner that is compatible with the State's developing, or consistent with the State's approved, coastal zone management program;

(3) A showing, if the application or requisition for assistance has not been submitted to the Project Notification and Review System established by OMB Circular No. A-95 (Part I), that a memorandum of agreement for coordinating planning under section 308 with areawide comprehensive planning has been consummated with appropriate areawide clearinghouses in the State's coastal zone, pursuant to Part IV, Attachment A, of OMB Circular A-95; and

(4) A brief description of the activity or activities to be undertaken, indicating the relationship to allowable uses under § 931.33.

(c) Requisitions for proceeds of section 308(b) grants must contain such adequate assurances as are required by § 931.97(a).

(d) It is the Associate Administrator's intent to process completed appli-

cations and requisitions within 45 days of receipt.

§ 931.38 Limitations.

(a) Section 308(c) moneys awarded to a coastal State may not exceed 80 percent of the actual cost of the study or planning. States may use in-kind contributions as the non-Federal matching share in accord with Office of Management and Budget Circular A-102.

(b) Sections 308(c) and 308(b) planning assistance may not be used:

(1) To duplicate the development of the general planning process for energy facilities required of management programs under section 305(b)(8); or

(2) For general energy studies or plans divorced from actual, proposed, or likely new or expanded energy facilities, coastal energy activities, or OCS energy activities.

(Comment: According to the Act, States may use section 305 grants to develop the general planning process for coastal energy facilities required under section 305(b)(8).)

Subpart E—Financing Public Facilities and Public Services

§ 931.40 General.

This subpart sets forth policies governing assistance to coastal States and units of general purpose local government under sections 308(d) (1) and (2) and 308(b), the objectives of providing this assistance, the purposes for which it may be used, and the sources from which it will be drawn. This subpart also describes the procedures for allotting credit assistance among coastal States, for applying for credit assistance from the Fund (sections 308(d) (1) and (2)), and for requisitioning the proceeds of formula grants (section 308(b)).

§ 931.41 Objectives.

The objectives of assistance under this subpart are:

(a) To help coastal States and units of general purpose local government finance new or improved public facilities and public services needed because of coastal energy activity;

(b) To provide front-end financing that can be expected to be repaid later from revenues generated by the coastal energy activity, unless such revenues do not materialize; and

(c) To assure that necessary development in coastal areas is consistent with State coastal zone management objectives, the safeguarding of valuable national coastal environmental and recreational resources, and public safety.

§ 931.42 Definitions.

(a) The term "public facility" includes, but is not limited to, the fol-

lowing facilities to the extent that they are financed by any State or unit of general purpose local government; that they meet the requirements of Subpart I of this part; and that they do not primarily serve industrial facilities, except if the public facilities are wholly owned by a unit of general purpose local government and if industrial user charges from the facilities will be a primary source of revenue to repay the loan received or obligation guaranteed under this subpart.

(1) *Education.* Day care centers; primary, secondary, and general vocational schools, including portable classrooms and temporary facilities; school equipment; libraries, including books and equipment;

(2) *Environmental protection.* Facilities and equipment used to monitor or control air and water quality or noise standards, to insure the continued viability of fish, wildlife, and land resources, to prevent or control erosion; land acquisition for environmental protection;

(3) *Government administration.* Facilities and equipment essential for general government administration;

(4) *Health care.* Emergency medical facilities and equipment, including ambulances; clinic and hospital buildings and equipment; alcohol and drug abuse centers; emergency shelter and sanitary facilities;

(5) *Public safety and law enforcement.* Detention centers, police equipment and stations, fire stations and firefighting equipment, fire training centers, animal control facilities, communication facilities and equipment, and rescue facilities and equipment;

(6) *Recreation.* Facilities and equipment for amateur sports and performing arts, community recreational centers, local parks and playgrounds, acquisition of parkland or beaches or of public access to such land or beaches;

(7) *Transportation.* Street and street lighting, roads, bridges, road maintenance equipment, parking associated with public facilities, docks, air and water navigation aids, canals and navigation facilities, air terminals in remote areas, mass transit including bus and ferry systems;

(8) *Public utilities.* Electric generating plants and distribution systems; natural gas distribution systems; solid waste collection systems; waste collection and treatment systems, including drainage; water supply systems; and telephone systems.

(b) The term "public service" means any service authorized by law to be provided by a State or unit of general purpose local government to the extent that:

(1) It is financed by the State or unit of general purpose local government;

(2) It meets the requirements of Subpart I of this part; and

(3) It does not primarily serve industrial facilities.

(c) A public facility is considered "new or improved" if it is constructed, expanded, or renovated after July 26, 1976.

(d) A public service is considered "new or improved" if the proposed type or increased level of service was not offered in the fiscal year prior to the application or requisition for assistance for such service.

(e) A public facility or public service is "required as a result" of coastal energy activity if the employment and related population associated with such coastal energy activity has caused or is expected to cause substantial shortages of such public facilities or public services.

(f) A public facility or public service is "required as a direct result" of new or expanded OCS energy activity if the individuals (and their families) employed in such activity are expected to cause substantial shortages of such public facilities or public services.

(g) Adequate credit assistance is "unavailable" in a fiscal year only if:

(1) There is no institutional process which has ever been used or reasonably could have been used under constitutional or statutory authority as of July 26, 1976, through which credit assistance from the Fund could be obtained by the State or a unit of general purpose local government therein to finance projects or programs necessary to provide a new or improved public facility or public service which is required as a direct result of new or expanded OCS energy activity; or

(2) The Associate Administrator determines that revenues at current rates and methods will not be sufficient to amortize fully the cost of a new or improved public facility or public service that is required as a direct result of new or expanded OCS energy activity.

§ 931.43 Purposes.

(a) Credit assistance available from the Fund under sections 308(d) (1) and (2) is intended to help meet State and local needs to finance most of the new or improved public facilities and public services that are required as a result of coastal energy activity.

(b) Grant assistance from the formula grants under section 308(b) is intended to help meet State and local needs for new or improved public facilities and public services that are required as a direct result of new or expanded OCS energy activity.

§ 931.44 Sources.

The primary source of assistance for purposes set forth in § 931.43(a) is the allotment of credit assistance from the Fund (sections 308(d) (1) and (2)). If adequate credit assistance is unavailable (as defined in § 931.42(g)) from the Fund, the formula grants (section 308 (b)) become a source of assistance

for the purposes set forth in § 931.43(b).

§ 931.45 Eligibility.

(a) To be eligible for allotments and assistance from the Fund under sections 308(d) (1) or (2) or from formula grants under section 308(b)(4)(B), a coastal State must meet the basic eligibility requirements of § 931.25.

(b) To be eligible for the use of section 308 (b) grants under this subpart, adequate credit assistance from the Fund must be unavailable, as defined in § 931.42(g).

§ 931.46 Allotment of sections 308(d) (1) and (2) credit assistance among coastal States.

(a) Credit assistance available in any fiscal year through the Fund, to the extent provided for in appropriations Acts, will be allotted in each fiscal year among eligible coastal States according to the procedures of this section. Credit assistance allotted to a coastal state will remain available for award until the end of the second fiscal year following the fiscal year in which the allotment took place. Allotted credit assistance not awarded to a coastal State or its units of general purpose local government by that time will be reallocated among eligible coastal States. The Associate Administrator may extend the period of availability of an allotment if he/she determines that such an extension is warranted.

(b) The Associate Administrator will compile annually a list of new or expanded coastal energy activities:

(1) For which major Federal or State permits or licenses have been obtained;

(2) For which exploration plans are expected to be submitted to the U.S. Department of the Interior because an OCS lease sale has taken place;

(3) For which development plans have been approved by the Department of the Interior; or

(4) Which, in the determination of the Associate Administrator, are likely to necessitate the construction of new or improved public facilities or the provision of new or improved public services. It is on this list that the Associate Administrator will base his/her estimate of both the number of additional individuals who are expected to become employed in the activities and the related new population who are expected to reside in the respective coastal States.

(c) The Associate Administrator will determine annually standardized unit costs for public facilities and public services for new temporary and permanent population in the relevant coastal State. These costs will take into account regional cost differences.

(d) The Associate Administrator will furnish to the coastal States the data developed pursuant to paragraphs (b)

and (c) of this section. Coastal States will have 45 days to submit comments to the Associate Administrator who will then consider the State comments and make revisions as appropriate.

(e) The Associate Administrator will then compute a need factor for each new or expanded coastal energy activity from the data developed pursuant to paragraphs (b), (c), and (d) of this section. A State need factor will then be computed for each coastal State by summing these need factors within the state. A national need factor will be computed by summing all of the State need factors. Finally, a relative need factor will be calculated for each coastal State by dividing the State's need factor by the national need factor.

(f) The Associate Administrator will compute each coastal State's allotment of credit assistance from the Fund in proportion to that State's relative need factor and notify the coastal States of their respective allotments.

(1) The total amount of available funds allotted among the coastal States in any fiscal year will be the lesser of the following amounts:

(i) The national need factor as computed according to paragraph (e) of this section; or

(ii) The total amount of new credit assistance appropriated for that year plus any amount available in the Fund that can be allotted to the States.

(2) If the amount in paragraph (f)(1)(i) of this section is less than the amount in paragraph (f)(1)(ii) of this section, the unallotted credit assistance will be retained in the Fund for use in subsequent years.

§ 931.47 Allotment of section 308(b) formula grants.

The annual allotment of formula grants among coastal States is described in § 931.76.

§ 931.48 Application and requisition procedures.

(a)(1) After being notified of its allotment under § 931.46, an eligible coastal State may submit to the Associate Administrator applications for the award of section 308(d) loans and guarantees.

(2) A coastal State may requisition in any fiscal year the proceeds of its allotted formula grants for the purposes of § 931.43(b) after it has been notified of its credit assistance allotment for that year, if adequate credit assistance from the Fund is unavailable for such purposes. This requisition may be submitted along with or after the pertinent applications for credit assistance from the Fund.

(b) Applications for requisitions for credit assistance from the Fund or the proceeds of formula grants must contain the following certifications and information:

(1) A certification by the State agency designated under § 931.26(a)(2) that the assistance has been allocated within the State in accord with the intrastate allocation process described in Subpart J of this part;

(2) A certification by the State agency designated under § 931.26(a)(3) that the assistance will be used in a manner that is compatible with the State's developing, or consistent with the State's approved, coastal zone management program;

(3) For construction projects, as defined in the Office of Management and Budget Circular A-102, factual information necessary to evaluate the project's environmental impacts, in detail sufficient to enable the Associate Administrator to determine whether an environmental impact statement (EIS) will be required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321, et seq.); and

(4) A showing that such applications or requisitions for assistance have complied with the requirements of the Project Notification and Review System established by Office of Management and Budget Circular A-95 (Part I).

(c) (1) Applications for credit assistance from the Fund must also contain the following information:

(i) A description of the coastal energy activity causing the impacts because of which the credit assistance is sought;

(ii) A description of the new or improved public facilities or public services, required as a result of coastal energy activity, for which the assistance is sought, including costs on an annualized basis;

(iii) An estimate of current levels of utilization of public facilities and public services in the borrower's jurisdiction similar to those for which credit assistance is sought; and

(iv) Appropriate fiscal schedules, including financial and economic information, required to evaluate the payback potential on the request for credit assistance. (Such fiscal schedules will include the best available historical data on the revenues and expenditures of the borrower for five years preceding the year of application.)

(Comment: Appropriate technical assistance will be provided by OCZM upon request.)

(2) The Associate Administrator will use the information contained in the fiscal schedules described in paragraph (b)(1)(iv) of this section to negotiate with the borrower the terms and conditions of the loan or guarantee agreements as described in § 931.50(c) and § 931.51(f). The fiscal schedules will be used in setting the conditions under which repayment assistance will

be available, as incorporated into the terms and conditions of the loan or guarantee agreements.

(3) Even when the likelihood of eventual repayment assistance seems high, it will not be the practice of the Associate Administrator to require that the borrower raise its tax rates above or alter its tax methods from those generally prevailing at the time the application is approved. However, in circumstances where the tax base or revenues available to the borrower are reduced for reasons unrelated to the failure of the economic growth connected with energy development to materialize, the borrower will be expected to meet its principal and interest payments according to the loan or guarantee.

(d)(1) Requisitions for the proceeds of formula grants must contain:

(i) Such adequate assurances as are required by § 931.97(a); and

(ii) A brief description of the proposed new or improved public facility or public service sufficient to enable the Associate Administrator to verify that the facility or service is required as a direct result of new or expanded OCS energy activity.

(2) Before awarding proceeds of allotted formula grants, the Associate Administrator will:

(i) Verify the certifications and information submitted pursuant to paragraphs (a) and (d)(1)(ii) of this section;

(ii) Determine whether credit assistance under the Fund is unavailable (as defined in § 931.42(g));

(iii) Determine that the State has provided such adequate assurances as are required by § 931.97(a); and

(iv) Determine whether an environmental impact statement (EIS) will be required under the National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321 et seq.) and prepare an EIS when necessary.

§ 931.49 [Reserved]

§ 931.50 Special requirements for section 308(d)(1) loans.

(a) *Interest rate.* The interest rate shall be the current average market yield for outstanding marketable obligations of the United States with remaining periods to maturity comparable to the maturity of such loans. The Administrator of NOAA may under special circumstances approve lower interest rates.

(b) *Eligibility.* The Associate Administrator may make a loan to an otherwise eligible borrower even though the fiscal schedules described in § 931.48(b)(1)(iv) or other financial information does not indicate adequate coverage for debt service.

The Associate Administrator may also make loans under section 308(d)(1) to State agencies established for the purpose of financing public fa-

cilities. Such loans shall be subject to terms and conditions as the Associate Administrator may prescribe.

(c) *Loan agreements.* Each loan agreement will incorporate in detail the conditions under which the repayment assistance described in subpart F of this part will be available. These conditions will be binding upon the Associate Administrator and the borrower.

(d) *Repayment schedule.* Each loan agreement will contain a mutually agreed-upon repayment schedule, which will be tailored to the repayment ability of the borrower as indicated in the fiscal schedule described in § 931.48(b)(1)(iv) or in other financial information. This repayment schedule will set forth the borrower's annual loan service (principal and interest) payments. The borrower may accelerate payment with no prepayment penalties.

(e) *Maturity of loans.* Loans will be made for a period not to exceed the normal useful life of the project. In no event will a loan, including extensions and renewals thereof, be made with a maturity exceeding 30 years from the date of the final loan closing.

(f) *Security.* Loans made under section 308(d)(1) will be secured in the manner customary or legally allowed under respective State statute and local government charters and ordinances for projects of the type for which credit assistance is requested. The Associate Administrator's interest may be perfected, where appropriate, by a filing under the Uniform Commercial Code as adopted by the subject State, or, in any jurisdiction where the Uniform Commercial Code has not been enacted, by the recording of a mortgage.

(g) *Disbursement of loan funds.* The Associate Administrator may disburse loan funds on a phased basis. Approval of such loan advances will be made after receipt by the Associate Administrator of:

(i) A favorable preliminary approving opinion of bond counsel on the validity of the proposed interim and final bond or promissory note and,

(ii) Satisfactory evidence of receipt of firm construction, service, and/or supply bids as well as compliance with the other loan conditions required to be fulfilled before disbursement. Advances or partial purchases shall be made in units of not less than 25 percent spaced so as to enable the borrower to pay incurred costs as they come due. Advances must be deposited in a bank with Federal Deposit Insurance Corporation coverage, and the balances exceeding such coverage must be collaterally secured as provided in 12 U.S.C. 265.

(h) *Interim financing on loan projects.* The terms and conditions of the interim financing are subject to prior

approval by the Associate Administrator. The Associate Administrator, upon request by the borrower, will provide an appropriate letter of intent to aid the borrower in obtaining interim financing from sources other than OCZM.

(i) *Bond counsel.* The borrower shall retain bond counsel to represent it in each loan transaction. Such bond counsel must receive the prior approval of the Associate Administrator.

§ 931.51 Special requirements for section 308(d)(2) Federal guarantees.

(a) *Eligibility.* The Associate Administrator will consider eligible for guarantee under the Fund any legal debt of any eligible borrower, if the Secretary of the Treasury approves such debt and it meets other requirements set forth in section 308(f).

(b) *Taxable obligations.* The interest paid on any obligation which is guaranteed under section 308(d)(2) and which is received by the purchaser of such obligation (or the purchaser's successor in interest) shall be included in gross income for the purposes of chapter 1 of the Internal Revenue Code of 1954.

(c) *Interest subsidy.* The Associate Administrator may pay out of the Fund, pursuant to the terms of the bond or other evidence of indebtedness, to the coastal State or the unit of general purpose local government issuing an obligation guaranteed under section 308(d)(2) not more than the portion of the interest on such obligation as exceeds the amount of interest that would be due at a comparable rate for loans made under section 308(d)(1) at the time the obligation is guaranteed by the Associate Administrator.

(d) *Fees for guarantees.* The Associate Administrator will levy a fee for providing a Federal guarantee. This fee will be set on the basis of the administrative costs incurred in providing and monitoring such guarantee. The fee may be waived in the event repayment assistance (as described in Subpart F of this part) is required.

(e) *Default procedures and guarantee incontestability.* If a borrower defaults on a bond or other evidence of indebtedness guaranteed under the Fund, the holder of the bond or other evidence of indebtedness may demand, pursuant to the terms of the bond or other evidence of indebtedness, payment from the Associate Administrator of the principal and accrued interest of the obligation in accord with section 308(f)(5)(B). The validity of such a guarantee shall be considered incontestable, except when the holder of the obligation is guilty of fraud or misrepresentation or was aware of fraud or misrepresentation at the time he purchased the obligation.

(f) *Guarantee agreements.* Each obligation guaranteed under this subpart

will entail agreements setting forth in detail the conditions under which the repayment assistance described in subpart F of this part will be available. These conditions will be binding upon the Associate Administrator and the borrower. In addition, all provisions in the underlying documents for obligations guaranteed under section 308(d)(2) will be subject to the approval of the Associate Administrator and will contain such additional provisions as he/she may require.

(g) *Bond counsel.* The borrower shall retain bond counsel to represent it in each guarantee transaction. Such bond counsel must receive the prior approval of the Associate Administrator.

Subpart F—Repayment Assistance

§ 931.60 General.

This subpart sets forth policies and procedures for awarding various forms of repayment assistance under sections 308(d)(3) and 308(b)(4)(A).

§ 931.61 Objectives.

The objectives of the repayment assistance are to ensure that:

(a) Credit obligations will be modified and tailored according to ability to repay so that defaults can be avoided; and

(b) Net fiscal losses to the State or unit of general purpose local government resulting from coastal energy activity will be minimized.

§ 931.62 Definitions.

The term "borrower" refers to an eligible coastal State, a special purpose agency of the State, or a unit of general purpose local government that has been awarded credit assistance under sections 308(d)(1) or (d)(2).

§ 931.63 Purposes.

(a) The purpose of repayment assistance under sections 308(d)(3)(A-C) is to assist a borrower who is temporarily unable to meet scheduled repayments of loans or guaranteed obligation.

(b) The purpose of a repayment grant from the proceeds of a State's allotted formula grant under section 308(b) is to assist a borrower in meeting scheduled repayments of a guaranteed bond when the remedies of sections 308(d)(3)(A-C) are inadequate.

(c) The purpose of a repayment grant from a State's allotted credit assistance from the Fund section under 308(d)(3)(D) is to assist a borrower in meeting scheduled repayments of a loan or guaranteed obligation when the remedies of sections 308(d)(3)(A-C) are inadequate and formula grants are not available for that purpose. If the State's allotment is insufficient, a grant will be made from the Fund.

§ 931.64 Sources of repayment assistance.

(a) *Primary sources.* The primary sources of repayment assistance are

modification of credit assistance terms and conditions under section 308(d)(3)(A), refinancing of a loan under section 308(d)(3)(B), or making a supplemental loan under section 308(d)(3)(C) for meeting a loan or guarantee obligation.

(b) *Secondary sources.* If the borrower is unable to meet scheduled repayments by means of one or more of the primary sources of repayment assistance, and if the inability to repay results from a change in scope of the coastal energy activity or the related new population, the secondary sources of repayment assistance may be used to meet obligations. These secondary sources are the proceeds of the State's allotment of formula grants under section 308(b) and grants from the State's allotment of moneys from the Fund under section 308(e)(1), or directly from the Fund if the State's allotment is insufficient.

§ 931.65 General eligibility.

(a) A coastal State or unit of general purpose local government is eligible for repayment assistance only if:

(1) It has been awarded a loan under section 308(d)(1) or a guarantee under section 308(d)(2); and

(2) It has submitted a report, as required under § 931.66, updating the information described in § 931.48(b)(1).

(b) A borrower does not have to be in default before qualifying for repayment assistance. The default of a borrower will nevertheless automatically occasion review for repayment assistance by the Associate Administrator.

§ 931.66 Application update.

After submitting its original credit assistance application, and until the full repayment of its loan or guaranteed obligation, the borrower shall submit periodically to the Associate Administrator a report updating the information described in § 931.48(b)(1). The frequency of submission of this report will be established by the Associate Administrator in consultation with the borrower. This report should contain whatever new information the borrower has received and can document concerning the coastal energy activity and its likely effects on revenues and expenditures.

§ 931.67 Review for repayment assistance.

(a) At the request of the borrower or on his/her own initiative, the Associate Administrator shall undertake a review for repayment assistance. Prior to the initiation of this review by the Associate Administrator, the borrower must submit a report (described in § 931.66) updating the information described in § 931.48(b). The Associate Administrator will examine the information and forecasts contained in the report, particularly those relating to the status and effects of the coastal energy activity involved.

(b) All terms and conditions of the loan or guarantee, as enumerated in the loan or guarantee agreements, will remain in effect pending the review for repayment assistance.

§ 931.68 Award of repayment assistance.

(a) It is the Associate Administrator's intent to offer repayment assistance within 45 days after the request for repayment assistance described in § 931.67, upon a finding that, pursuant to the terms and conditions of the loan or guarantee agreements, the borrower is unable to meet its annual loan service payment or obligation under a guarantee in accord with its repayment schedule because the actual increase in employment and related population from coastal energy activity and associated facilities have failed to provide adequate revenues.

(b) Repayment assistance offered pursuant to paragraph (a) of this section will consist of one or more of the following types.

(1) *Modification of terms.* In the case of loans awarded under section 308(d)(1), the repayment schedule described in § 931.50(d) may be retailed in light of the information submitted in the report described in § 931.66. Such modification of terms and conditions may include an extension of the payback period; however, the payback period may not exceed 30 years from the closing date of the original loan.

(2) *Refinancing.* Outstanding loans under section 308(d)(1) or outstanding bond or other obligations guaranteed under section 308(d)(2) may be refinanced by means of a loan at the interest rate appropriate at the time of the refinancing.

(3) *Supplemental loans.* If the Associate Administrator determines that expected revenues will be temporarily insufficient to meet the borrower's guaranteed bond or other obligations or to meet a loan repayment schedule, he/she may offer to make a supplemental loan to the borrower.

(4) *Repayment grants.* If the Associate Administrator has taken action under paragraphs (b)(1-3) of this section and additional action under those paragraphs would not enable the borrower to meet its obligations within a reasonable time. The Associate Administrator, pursuant to the terms and conditions of the loan or guarantee agreements, will make a repayment grant in an amount sufficient to enable the borrower to meet its obligations.

(Comment: The award of repayment assistance can be based only on an objective comparison of the information submitted in the updating report as described in § 931.66 with the terms and conditions of the original loan or guarantee agreements.)

(c) When the Associate Administrator offers one of the courses of action in § 931.68(b)(1-4), the borrower may

submit to the Associate Administrator a formal acceptance of the recommended form of repayment assistance. In the case of a repayment grant from the proceeds of a State's formula grant under section 308(b) for a bond guaranteed under section 308(d)(2), the borrower shall submit this formal acceptance through the State agency designated under § 931.26(a)(1), and the acceptance shall include such adequate assurances as are required by § 931.97(a). The repayment assistance will take effect as soon as the Associate Administrator receives the formal acceptance.

(d) If the formula grants allotted the State are insufficient for all the repayment grants recommended by the Associate Administrator in a fiscal year, the State agency designated under § 931.26(a)(1) shall indicate which bonds it wishes to retire with the proceeds of available formula grants, giving priority to local bonds in accordance with section 308(b)(4)(A). Those borrowers whose bonds the State has indicated it cannot retire with the proceeds of formula grants may request repayment grants from the State's allotment of credit assistance and, when necessary, which will be awarded directly from the Fund. Borrowers in States that have no allotted formula grants may request the recommended repayment grants, which will be awarded from the State's allotment of credit assistance and, when necessary, directly from the Fund.

(e) If, after the review for repayment assistance, the Associate Administrator determines that no repayment assistance is warranted, or if the borrower does not formally accept such assistance, the borrower will remain subject to the terms and conditions of the loan or guarantee and to the requirements of Subpart I of this part.

§ 931.69 Appeal procedure.

(a) Whenever a dispute arises concerning the Associate Administrator's finding made pursuant to § 931.68(a) regarding the existence of conditions which require an offer of repayment assistance, the borrower may appeal the Associate Administrator's decision to the Administrator of NOAA by submitting a request for review to the Office of the Administrator of NOAA.

(b) The Administrator of NOAA, if requested, will order a formal hearing on the record to be conducted within 30 days of the borrower's request for review.

(c) The Administrator will issue a written decision on the appeal within 60 days of the borrower's request for review.

(d) The appeal procedure provided for in paragraphs (a)-(c) of this section is intended to provide a timely and impartial forum for resolving dis-

putes concerning repayment assistance. Such appeal procedures may be initiated by the borrower, but do not expressly or by implication limit the borrower's other remedies at law or in equity. The borrower may seek appropriate judicial relief in a court of competent jurisdiction without the consent of the Associate Administrator or the Administrator of NOAA, and without first having exhausted the appeal procedures provided in paragraphs (a)-(c) of this section.

Subpart G—Grants for Unavoidable Losses of Coastal Environmental and Recreational Resources

§ 931.70 General.

This subpart sets forth policies and requirements for awarding environmental and recreational grants to coastal States under sections 308(b) and 308(d)(4), and describes the objectives of awarding these moneys, the purposes for which they may be used, the sources from which they will be drawn, and the eligibility requirements.

§ 931.71 Objectives.

The objectives of providing assistance under sections 308(b) and 308(d)(4) are:

(a) To help States and units of local government prevent, reduce or ameliorate unavoidable losses of valuable environmental or recreational resources resulting from coastal energy activity; and

(b) To ensure that the person or persons responsible for these environmental or recreational losses pay for their full cost.

§ 931.72 Definitions.

(a) The term "unavoidable" refers to that part of damage to or loss of an environmental or recreational resource resulting from coastal energy activity or from the public facilities associated therewith that either:

(1) Cannot be attributed to any identifiable person or persons; or

(2) Whose costs of prevention, reduction, or amelioration cannot feasibly be directly or indirectly assessed against an identifiable person or persons through:

(A) Reasonable implementation or enforcement of the existing regulatory authorities of the State or of any political subdivision of the State; and

(B) For losses occurring after July 26, 1976, a reasonable effort by the State to recover money damages for the loss; and

(3) Cannot be paid for with funds that are available from any other Federal program.

(Comment: "Regulatory authorities" refers to statutes, local ordinances, or laws and implementing regulations, existing at the time that the loss occurred or at the

time of the date of application or requisition for anticipated losses, which set standards or conditions for development. Regulatory authorities include development regulations, such as zoning, subdivision, or energy facility siting laws, that apply to the siting or location of a new or expanded coastal energy activity or the public facilities associated therewith; and pollution or nuisance prevention regulations that apply to the operations of both new and preexisting development activity. Authorities that create a right to money damages on the part of the State or any of its political subdivisions are not included in this term, but are addressed in a separate provision, § 931.72(a)(B).

Losses occurring before July 26, 1976, will be unavoidable when there is no anticipated or continuing violation of pollution control or nuisance prevention authorities by the source of the loss, and when the loss cannot be paid for with funds that are available from any other Federal program.

For losses occurring after July 26, 1976 (the date on which section 308 became effective), a loss will be unavoidable when the conditions in the preceding paragraph are met and when the State can demonstrate that a reasonable effort has been made under State law to recover money damages for the loss. This means that a damage action must be resolved before disbursement of funds either through administrative or judicial proceedings or through a settlement among the parties; or the application or requisition must contain a statement from the responsible enforcement authority that there exists no reasonable cause of action for such a damage claim. This statement should address two factors: (1) the basis in law for the conclusion that no reasonable cause of action exists; and (2) the evidentiary support for the conclusion.

For losses that are anticipated at the time of requisition or application, the unavoidability that will be met where there has been reasonable enforcement or implementation of development regulations to prevent the loss. Reasonable enforcement or implementation of regulatory authorities in this situation would depend on the nature of the anticipated loss, and might include obtaining a significant contribution of land from the potential source of the loss, or the selection of different and more environmentally sound alternative sites or design for the proposed facility.

In addition, losses will be considered "unavoidable" for purposes of this subpart where funds are sought to design or implement strategies to prevent, reduce or ameliorate environmental or recreational losses resulting from coastal energy activity, or to cover costs incurred in the enforcement or legal defense of conditions imposed on new or expanded coastal energy activity to prevent a specific environmental or recreational loss.

It is intended that States or units of local government use other possible sources of Federal assistance before being able to use sections 308 (b) and (d)(4) for environmental or recreational purposes. However, if assistance is not expected to be provided to a State or unit of local government in a timely manner, assistance under this subpart will be available.)

(b) The term "loss" refers to any damage to or degradation of an environmental or recreational resource, including the loss of public access to that resource.

(c) The term "environmental resource" refers to:

(1) Areas of land and/or water that are or have been largely in a natural state, or whose value derives primarily from ecological considerations;

(2) Important animal and plant populations, their habitat, and areas of human use;

(3) Air and water quality; or

(4) An area that has been designated under a State's approved coastal zone management program as an area of particular concern for environmental purposes.

(d) The term "recreational resource" refers to an area of land and/or water that has characteristics making it desirable for one or more types of recreational activities, and which has, in fact, been in use for such activities, or which has been designated under a State's approved coastal zone management program as an area of particular concern or potential use for recreational purposes.

(e) The term "valuable" is intended to include all relevant benefits, both quantifiable and non-quantifiable, attributable to the resource being valued, including the replacement cost for a similar resource.

(f) The term "new employment" means those persons who obtain employment during a given fiscal year in any new or expanded Outer Continental Shelf energy activity.

(g) The term "first landed" in a particular coastal State refers to oil and natural gas produced from the OCS that is first unloaded from tankers or barges at ports within that State, or is brought to shore in pipelines that first touch non-submerged land in that State.

(Comment: Suppose a pipeline comes ashore in State A where it connects to oil or natural gas processing or distribution facilities. On the way from the well to State A, the pipeline passes over a small island or a rock that belongs to State B without causing any impact. In this situation, State A will be considered the State in which the oil or gas is "first landed.")

(h) The term "person" means any individual; any corporation, partnership, association, or other entity organized or existing under the laws of any State; the Federal Government; any State, regional, or local government; or any entity of any such Federal, State, regional, or local government.

§ 931.73 Sources.

(a) The primary source of assistance for preventing, reducing, or ameliorating environmental or recreational resource losses resulting from coastal energy activity is the formula grants (section 308(b)(4)(C)) allotted to coastal States according to § 931.76.

(b) If a State has no allotment under section 308(b), or if the Associate Administrator determines that grant

moneys allotted the State under section 308(b) are insufficient, the State may apply for the grant moneys under section 308(d)(4) that are allotted it according to § 931.77.

§ 931.74 Purposes.

(a) Assistance is provided in sections 308(b)(4)(C) and 308(d)(4) to help States and units of local government design and implement projects to prevent, reduce or ameliorate past or future unavoidable environmental and recreational losses resulting from coastal energy activity.

(b) Assistance for the design and implementation of projects under this subpart is intended to pay for:

(1) Restoration, replacement, or acquisition of environmental or recreational resources to prevent, reduce, or ameliorate unavoidable environmental and recreational losses.

(2) The design and implementation of programs and strategies to prevent, reduce or ameliorate unavoidable environmental and recreational losses, including the cumulative effects of coastal energy activity.

(3) Costs incurred in the enforcement or legal defense of conditions imposed on new or expanded coastal energy activity to prevent a specific environmental or recreational loss.

(4) The cost differential between methods of providing a public facility required as a result of coastal energy activity which meet minimum State environmental and construction standards, and a higher cost method that reduces an environmental loss.

(Comment: Under subsection (b)(2), the design and implementation of programs or strategies to prevent, reduce, or ameliorate unavoidable losses, environmental and recreational grants are available to address certain cumulative impacts of development associated with coastal energy activity.

Subsection (b)(3) refers to conditions attached to permission for new development that may raise issues of fact and law. The public agent imposing the condition may require special expertise to substantiate his/her position relating to a potential environmental or recreational loss from new or expanded coastal energy activity. An associated need for legal services to clarify the authority of the public agent to impose the condition may also occur. When a requisition or application for such services addresses a specific loss, it would qualify for a grant under this subpart.

Finally, in certain situations, public authorities may only be authorized and funded for the construction of a public facility in a manner resulting in substantial environmental or recreational losses. In some instances these losses may be considered "unavoidable" under subsection (b)(4). The regulations require evidence that the lower cost facility design meets the applicable environmental and construction standards of the State in its "funded" form. A grant under this subpart would be available for the cost increment which reduces the environmental or recreational loss caused by the facility.)

§ 931.75 Eligibility.

(a) To be eligible for allotments and assistance under sections 308(b)(4)(C) and 308(d)(4), a coastal State must meet the basic eligibility requirements of subpart C of this part.

(b) To be eligible for assistance under section 308(d)(4), a State's allotment under section 308(b) must be insufficient. States that have no allotment of grants under section 308(b) are directly eligible for assistance under section 308(d)(4).

§ 931.76 Allotment of formula grants (section 308(b)).

Moneys appropriated in any fiscal year for the purposes of section 308(b) will be allotted among eligible coastal States according to the following procedures. Allotments will be made as soon as is practicable. The proceeds of allotted formula grants which are requisitioned by and awarded to a State in any fiscal year but which are not expended or obligated by the State by the end of the fiscal year after the fiscal year in which the grant proceeds were awarded are subject to recovery in accordance with § 931.97 of this part and are subject to subsequent reallocation among eligible coastal States. Allotted formula grant proceeds not requisitioned remain available for award until the end of fiscal year 1984, at which time proceeds not awarded will be returned to the United States Treasury.

(a) At the end of each fiscal year, the Associate Administrator will gather from appropriate Federal and other sources the following data:

(1) The amount by adjacent coastal State, of OCS acreage leased in that fiscal year;

(2) The amount, by adjacent coastal State, of oil and natural gas produced from the OCS that year;

(3) The amount of oil and natural gas produced from the OCS that is first landed in each coastal State that year; and

(4) The amount of new employment, as defined in § 931.72(f), residing in each coastal State.

(Comment: In computing the volumes of oil and gas in paragraphs (a)(2) and (a)(3), the Associate Administrator will consider 6,000 cubic feet of natural gas to be the equivalent of one barrel of oil.

(b) The Associate Administrator will provide these data to the States as soon as the data are collected. The States will have a comment period of 45 days during which to present evidence of errors in the data. At the end of the 45-day period, the allotment—incorporating any revised data—will be made.

(c) The data for each State in paragraphs (a)(1-4) of this section, when divided by the sum of these data for all States, constitute a set of weighting

coefficients which will be applied in the following manner to the amount appropriated for the purpose of section 308(b):

(1) The set of State coefficients derived from the data of paragraph (a)(1) of this section (acreage leased) will be applied to one-third of the amount appropriated;

(2) The set of coefficients derived from the data of paragraph (a)(2) of this section (oil and gas produced) will be applied to one-sixth of the amount appropriated;

(3) The set of coefficients derived from the data of paragraph (a)(3) of this section (oil and gas first landed) will be applied to one-sixth of the amount appropriated; and

(4) The set of coefficients derived from the data of paragraph (a)(4) of this section (new employment) will be applied to one-third of the amount appropriated.

(d) The procedure above will result in four separate amounts for each coastal State. The sum of these four amounts is the allotment for each State of the moneys appropriated for the purposes of section 308(b).

§ 931.77 Allotment from the Fund (section 308(d)(4)).

(a) Moneys appropriated for the purposes of section 308(d)(4) will be allotted to eligible coastal States according to the procedures outlined in Subpart E of this part for allotting sections 308(d) (1) and (2) assistance credit, except that OCS related facilities will be deleted from the annual list of new or expanded coastal energy activities.

(b) Moneys allotted a State under section 308(d)(4) that are not awarded to the State committed within the fiscal year following the fiscal year in which the allotment was made will be returned to the Fund for reallocation among eligible coastal States. The Associate Administrator will extend the period of availability of an allotment if he/she determines that there are extenuating circumstances that justify such an extension.

§ 931.78 Requisition and application procedures.

(a) An eligible coastal State may requisition the proceeds of its formula grants for the purposes set forth in § 931.74 as soon as it is notified of the amount of its allotment. If the State's allotted formula grant is insufficient or if the State has not been allotted formula grants, the State may apply for moneys allotted to it from the Fund.

(b) Requisitions for formula grant proceeds under section 308(b) and applications for moneys under section 308(d) must contain the following certifications and information:

(1) A certification by the State agency designated under § 931.26(a)(2)

that the assistance has been allocated within the State in accord with the intrastate allocation process described in subpart J of this part;

(2) A certification by the State agency designated under § 931.26(a)(3) that the assistance will be used in a manner that is compatible with the State's developing, or consistent with the State's approved, coastal zone management program;

(3) A brief description of the proposed activity or activities sufficient to enable the Associate Administrator to verify that the activity or activities would prevent, reduce, or ameliorate an unavoidable loss of a valuable environmental or recreational resource pursuant to this subpart;

(4) For construction projects, as defined in Office of Management and Budget Circular A-102, factual information necessary to evaluate the project's environmental impacts, in detail sufficient to enable the Associate Administrator to determine whether an environmental impact statement (EIS) will be required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321, et seq.); and

(5) A showing that such applications or requisitions for assistance have complied with the requirements of the Project Notification and Review System established by Office of Management and Budget Circular A-95 (Part I).

(Comment: The description in subparagraph (1) must indicate how the loss is "unavoidable," as defined in § 931.72(a). For losses that occurred before July 26, 1976, the description must show that there is no continued violation of pollution control or nuisance prevention authorities. For losses that occurred after July 26, 1976 the description should demonstrate that a reasonable effort has been made under State law to recover money damages for the loss; if there has been no damage action resolved either through administrative or judicial proceedings or through a settlement among the parties, the application or requisition must contain a statement from the State Attorney General or other responsible enforcement authority that there exists no reasonable cause of action for such a damage claim.)

(c) Requisitions for proceeds under section 308(b) must also contain such adequate assurances as are required by § 931.97(a) of this part.

(e) It is the intent of the Associate Administrator that completed requisitions and applications will be processed within 45 days of completion of the required A-95 reviews, unless the Associate Administrator determines that an environmental impact statement is required.

(f) (1) Prior to being notified of any allotment under sections 308(b) and (d) (4), a coastal State agency designated under § 931.26 (a) (1) may submit to the Associate Administrator proposals for projects to reduce or

ameliorate the loss of or damage to valuable environmental/recreational resources that has resulted from coastal energy activity. Such proposals must contain information and certifications required under paragraph (c) of this section.

(2) Upon completion of the Associate Administrator's verification, and if he/she determines that no environmental impact statement is required, the State may requisition in any year proceeds of section 308(b) grants for the projects as described in subparagraph (1) of this paragraph, after notification of its allotment under section 308(b), without submission of any further information or further review and verification by the Associate Administrator, except for the adequate assurances required under paragraph (d) of this section. However, the State must notify the Associate Administrator of any changes in such projects proposed between the completion of the Associate Administrator's verification and the State's requisition of grant proceeds.

§ 931.79 Limitations.

The proceeds of formula grants under section 308(b) and moneys under section 308(d) (4) may not be used:

(a) For the prevention, reduction, or amelioration of any loss of an environmental or recreational resource that is directly attributable to the sale, lease, rental, or conversion to other uses of such resource by a State agency or unit of local government;

(b) To pay for that part of the cost of a project designed to prevent, reduce, or ameliorate the loss of a recreational resource, which is incommensurate with the value of the recreational resource;

(c) To pay for that part of the cost of a project, designed to prevent, reduce, or ameliorate the loss of an environmental resource, which is incommensurate with the value of the environmental resource; or

(d) For any prevention, reduction, or amelioration of an unavoidable environmental loss by means of a public facility eligible for funding under subpart E of this part, except for:

(1) Facilities for environmental protection as defined in § 931.42(a)(2) or for recreation as defined in § 931.42(a)(6);

(2) Facilities to prevent, reduce, or ameliorate environmental losses from freshwater or saltwater intrusion or erosion;

(3) Payment of the cost differential between methods of providing a public facility required as a result of coastal energy activity which meet minimum State environmental and construction standards, and a higher cost method that reduces a environmental loss; and

(4) Any such facility or modification of an existing facility that is deter-

mined by the Associate Administrator to be necessary primarily for the protection, reduction, or amelioration of environmental or recreational losses.

Subpart H—Lateral Seaward Boundaries

§ 931.80 General.

For the calculations of formula grant allotments under § 931.76, Outer Continental Shelf acreage and production shall be considered adjacent to a particular coastal State if such acreage and production lie on that State's side of the extended lateral seaward boundaries of that State. These extended lateral seaward boundaries of a coastal State shall be determined by delimitation lines established by the Associate Administrator according to the procedures of this subpart. These delimitation lines are to be established solely for determining a State's adjacency to Outer Continental Shelf acreage and production for the purposes of section 308(b), and they are not intended to have application under any other law or treaty of the United States.

§ 931.81 Establishment of delimitation lines when agreements exist between States.

If a lateral seaward boundary extending to a State's seaward boundary (see the Submerged Lands Act, 43 U.S.C. §§ 1301(b) and 1312) has been clearly defined or fixed by an inter-State compact, agreement, or judicial decision as of July 26, 1976, a delimitation line extending the lateral seaward boundary through the Outer Continental Shelf shall be based on the principles used to delimit or define the lateral seaward boundary in such compact, agreement, or decision. A copy of all such compacts, agreements, or decisions must be submitted to the Associate Administrator before calculations of State allotments are made and before March 4, 1977.

If a portion of a lateral seaward boundary has been clearly defined or fixed by an inter-State compact, agreement or judicial decision as of July 26, 1976, a delimitation line shall be based on the principles used to delimit or define the lateral seaward boundary in such compact, agreement or decision to the extent that such principles are applicable.

§ 931.82 Establishment of delimitation lines when no agreements exist between States.

If no lateral seaward boundary, or any portion thereof, has been clearly defined or fixed by inter-State compact, agreement, or judicial decision, a delimitation line extending from the State's seaward boundary through the Outer Continental Shelf shall be established in the following manner:

(a) If, on or before August 4, 1977, a lateral seaward boundary to the

State's seaward boundary is delimited or defined by an inter-State compact or agreement, the Associate Administrator will establish a delimitation line through the Outer Continental Shelf based upon the same principles used to delimit or define the lateral seaward boundary in such compact or agreement. A lateral seaward boundary established by inter-State compact or agreement may be based on any principles which are mutually acceptable to the States involved. When such a boundary requires a measurement from a baseline, that baseline will be as defined in § 931.84(a). The lateral seaward boundary delimited or defined by such a compact or agreement, must be appropriately documented to the Associate Administrator no later than August 4, 1977. Appropriate documentation shall include data sufficient to define the lateral seaward boundary and may include dimensionally stable base maps, geographic positions, azimuths, computations, and written descriptions.

(b) If a lateral seaward boundary is not defined or delimited by compact or agreement on or before August 4, 1977, delimitation lines will be established by the Associate Administrator based on applicable principles of law, including but not limited to the principles enumerated in the Convention on the Territorial Sea and the Contiguous Zone, the Convention on the Continental Shelf, and relevant judicial decisions. The Associate Administrator will extend this time period up to February 4, 1978, if the Governors of the States concerned each request such an extension. The Associate Administrator may also at his/her discretion extend the time period for other delimitation lines which may be affected by the one for which an extension has been requested. Prior to establishing these delimitation lines, the Associate Administrator will allow an additional 6-month period during which time the States failing to delimit or define a lateral seaward boundary may submit written arguments in support of their respective positions. Within 2 months after expiration of the period allowed for submission of arguments by States, the Associate Administrator will establish the required delimitation lines according to the applicable principles of law. The procedures of this paragraph may be invoked at any time after these regulations become effective if the States concerned jointly seek a determination by the Associate Administrator.

If the lateral seaward boundary is a matter in litigation prior to the time of delimitation by the Associate Administrator, such delimitation may be deferred by the Associate Administrator until a final judicial decision is rendered.

(c) If after July 26, 1976, a judicial decision is rendered to clearly define

or fix a lateral seaward boundary such a decision may be used by the Associate Administrator in establishing a line of delimitation.

§ 931.83 Establishment of delimitation lines under later compacts or agreements.

If, after February 4, 1977, two or more States enter into or amend an interstate compact or agreement, in order to clearly define or fix a lateral seaward boundary, delimitation lines extending such a boundary through the outer Continental Shelf will be based on principles used to delimit or define the lateral seaward boundary in such compact or agreement. However, delimitation lines so extended or altered will not affect grants made previously in accord with calculations under § 931.76.

§ 931.84 Procedures utilizing baselines for defining delimitation lines.

(a) In the event that the Associate Administrator establishes a line of delimitation based on measurement from a baseline, that baseline will be the intersection of the National Ocean Survey (NOS) low water datum of reference with the land, as described and published by the NOS on large scale nautical charts of the area, as modified by the application of the principles of the Convention on the Territorial Sea and the Contiguous Zone, as interpreted by the Ad Hoc Committee on U.S. Coastline Delimitation.

This committee, which has the responsibility to apply principles of international law and the Convention on the Territorial Sea and the Contiguous Zone in delimiting the territorial sea and the contiguous zone of the United States, will be charged with the identification of the baseline, including closing lines, on NOS charts as required to establish the baselines.

(b) If delimitation lines established by the Associate Administrator are based on a measurement from the baseline, they shall be delineated by the NOS, which shall determine the geographic positions of these points by either graphical or analytical procedures, and document the delimitation lines for review and comment by the above Ad Hoc Committee and final approval by the Associate Administrator.

§ 931.85 Formula grants impounded for disputed areas.

(a) That portion of a State's allotment of section 308(b) formula grants which is dependent on Outer Continental Shelf acreage and production in disputed areas, as determined by the Associate Administrator, will be impounded in the Treasury of the United States until such time as the required delimitation lines have been established by the Associate Administrator using the procedures outlined in § 931.82.

(b) That portion of a State's allotment of section 308(b) formula grants which is dependent on outer Continental Shelf acreage, production and landings in areas disputed between the Federal Government and the State will be impounded in the Treasury of the United States until such time as the issue is resolved.

Subpart I—General Provisions

§ 931.90 Allowable costs.

(a) Allowable costs will be determined in accord with Federal Management Circular 74-4, Cost Principles Applicable to Grants and Contracts with State and Local Governments (34 CFR 255), the grant/loan agreement, and with the unique requirements of the Coastal Energy Impact Program. Specifically, project costs must:

(1) Be necessary and reasonable for proper and efficient administration of the program, not be a general expense required to carry out the overall responsibilities of States or units of local governments;

(2) Be authorized or not prohibited under State or local laws or regulations;

(3) Conform to any limitations or exclusions set forth in these principles, Federal laws, or other governing limitations as to types or amounts of cost items;

(4) Be consistent with policies, regulations, and procedures that apply uniformly to both federally assisted and other activities of the unit of government of which the recipient is a part;

(5) Be accorded consistent treatment through application of generally accepted accounting principles appropriate to the circumstances;

(6) Not be allocable to or included as a cost of any other federally financed program in either the current or a prior period; and

(7) Be net of all applicable credits.

(b) Applications and requisitions for assistance under this part for projects or programs to provide new or improved public facilities or for construction projects to prevent, reduce, or ameliorate unavoidable environmental or recreational losses will be subject to the following additional requirements.

(1) Design and performance standards must conform to professionally recognized national standards. Costs must be reasonable and comparable to the cost of similar work awarded through open competitive bidding in the geographic area of the project.

(2) Compensation for engineering, architectural, or similar services shall not be based on a cost plus a percentage-of-construction cost.

(3) The following will be allowable project costs when necessary and reasonable for the completion of projects or programs assisted under this part.

(i) Land acquisition (including less-than-fee simple), easements, and rights-of-way.

(ii) Architectural, engineering, and other necessary technical service fees.

(iii) Lease or rental of essential moveable equipment.

(iv) Construction expenses, including construction materials, fixtures, appurtenances, and fixed machinery and equipment.

(v) Site preparation and improvement.

(vi) Capitalized interest during construction for a project in which it is necessary or advantageous for the recipient to borrow funds to finance construction costs and where State law permits such a loan. (This is an allowable cost for section 308(d) (1) and (2) credit assistance only.)

(vii) Capitalized interest during development, only when a section 308(d) loan or guarantee has been made for the project. (The allowable amount is limited to that which is required to meet interest payments after the project is operating but before income is sufficient to provide such payment. However, such amounts will be an eligible project cost only to the extent that the recipient does not have any other funds or sources of revenue for such interest payments.)

(viii) Initial public service expenses (operating costs) including supply inventories, salaries and utilities, only when a section 308(d) loan or guarantee has been made for the project. (The allowable amount is limited to that which is required to meet these public service expenses after the project is operating but before income is sufficient to provide for such services. However, such amounts will be an eligible project cost only to the extent that the recipient does not have any other funds or sources of revenue for such public service expense.)

(4) Activities conducted, or assets acquired, prior to approval of an assistance application or requisition are allowable costs only when specifically provided for in the grant or loan contract or agreement. Previously acquired assets not covered by an agreement may, however, be included in the State's matching share to the extent that they meet the requirements set forth in paragraph (a) of this section, and of Federal Management Circular 74-7. Purchase options for land and materials essential to the project or program may be an allowable project cost.

§ 931.91 Administrative procedures.

Administrative procedures for grants and credit assistance are based to the maximum extent possible upon Office of Management and Budget Circular, Office Administrative Requirements for Grants-in-Aid to State and Local Governments (34 CFR 256).

§ 931.92 Compliance with OMB Circular A-95 requirements.

(a) Preapplications, if used, applications, and requisitions for assistance

for public facilities and public services and for environmental and recreational grants for construction projects are subject to the Project Notification and Review System established by Office of Management and Budget Circular No. A-95 (Part I), as implemented by regulations promulgated by NOAA, 15 CFR 905.

(b) Applications and requisitions for assistance for planning under sections 308(c) and 308(b)(4)(B) and for non-construction projects or programs for environmental/recreational purposes under sections 308(b)(4)(C) and 308(d)(4) are not subject to Part I of OMB Circular No. A-95 if a memorandum of agreement for coordinating planning under section 308 has been executed between the state agency designated under § 931.26(a)(1) and the appropriate areawide clearing-houses in the State's coastal zone pursuant to Part IV, Attachment A, of OMB Circular No. A-95.

§ 931.93 Other Federal requirements.

Compliance with all other Federal statutory provisions and regulations which are applicable to federal assistance programs and recipients of such assistance is a condition of CEIP assistance.

§ 931.94 Environmental Impact Statements.

Under the National Environmental Policy Act of 1969, 42 U.S.C. 4321 et seq., and the guidelines 40 CFR 1500.1 et seq., the Associate Administrator will conduct an environmental impact assessment on each proposed use of assistance for construction projects under Subparts E and G of this part to determine whether an environmental impact statement (EIS) will be required. Such assessment will be based on threshold criteria which will be provided in OCZM guidelines. It is not anticipated that proposed uses of assistance under Subparts D (Planning) and F (Repayment Assistance) of this part, as well as for non-construction projects under Subparts E and G of this part, will require EIS preparation; however, the Associate Administrator will monitor the uses of assistance under these subparts with the requirements of NEPA in mind and will determine whether an EIS will be required. Initial data and information on the environmental impacts of a proposed project will be provided by the potential recipient of assistance under this part, according to OCZM guidelines. When the Associate Administrator determines that an EIS will be required, he/she will also consider the preparation of a regional or programmatic EIS on a group of similar or related projects, if appropriate. If, prior to receiving notice of its allotment under Subpart E of this part, a State wishes to seek an advance determination as to

whether an EIS will be required for a proposed project, such State may submit the information required under § 931.48(a)(5) to the Associate Administrator. The Associate Administrator will review the information submitted and will make a determination within 45 days of receipt of such information.

§ 931.95 Records.

(a) All initial recipients of financial assistance under section 308 shall keep and preserve, and shall require each unit of local government to which it passes the assistance to keep and preserve, detailed project control records reflecting acquisitions, work progress, expenditures, and commitments, indicating in each instance their relationship to estimated costs and schedules. All recipients shall also keep and preserve such full written financial records, accurately disclosing the amount and the disposition of the assistance, together with the amounts and disposition of other funds applied to the project, program, or other undertaking, as shall adequately establish compliance with the requirements of section 308, the terms and conditions upon which such financial assistance was made, and the standards for financial management systems contained in Attachment G to Office of Management and Budget Circular A-102. Such records shall be retained until:

- (1) Completion of the project, program, or other undertaking for which a grant was made or used, and thereafter for a period of at least 3 years; or
- (2) Full repayment of a loan or guaranteed indebtedness for which such financial assistance was provided, and thereafter for a period of at least 3 years.

§ 931.96 Audit.

The Associate Administrator, the Secretary of Commerce, and/or his/her designee and the Comptroller General shall have access for purposes of audit and examination to any records, books, documents, and papers which belong to, or are used under this part or controlled by, any recipient of the assistance or any person who entered into any transaction relating to such financial assistance and which is pertinent for purposes of determining if such financial assistance is being or was used in accordance with section 308, the terms and conditions upon which such financial assistance was made, Office of Management and Budget Circular A-102, and Federal Management Circular 74-4.

§ 931.97 Recovery of funds.

This section sets forth requirements and procedures to ensure that grant proceeds received by States may be recovered by NOAA if such proceeds have not been expended or obligated

for the purposes and activities covered by the grant award approved program activities and budget, and if 308(b) grant proceeds have not been expended or obligated by the State before the close of the fiscal year immediately following the fiscal year of project award.

(a) *Adequate assurances.* (1) Each requisition for the proceeds of section 308(b) grants submitted by a State under Subparts D, E, F, or G of this part shall contain a written statement that:

(i) The State will repay to the the United States the amount of an awarded grant which has been determined by the Associate Administrator not to have been expended or obligated by the State for purposes other than those set forth in §§ 931.33(b), 931.43(b), 931.63(b), and 931.74; and

(ii) The State will repay to the United States the amount of any grant which has been determined by NOAA not to have been expended or obligated by the State before the close of the fiscal year immediately following the fiscal year in which the grant proceeds were disbursed awarded.

(b) *Procedures for the recovery of funds.* (1) Upon receipt from NOAA of a written request for repayment which contains a finding that the proceeds of a grant received by the State have been expended or obligated by the State for purposes other than those set forth in the grant award, or, in the case of 308(b) grant proceeds, and if 308(b) grant funds or have not been expended or obligated were awarded before the close of the fiscal year immediately following the fiscal year in which the grant proceeds were awarded, such State shall provide a written response within 15 days to either refute or admit such findings.

(2) NOAA shall make a determination that repayment by the State will or will not be required, and shall notify the State of this determination no later than 45 days from the receipt by the State of the request for repayment described in paragraph (b)(1) of this section.

(3) If NOAA determines that repayment is required, the State shall have 30 days from the date of receipt of such determination to file a request for reconsideration with NOAA or 60 days from the date of receipt of such determination to make a repayment by check in the amount stated in such determination.

(i) If the State's request for reconsideration is denied, the State shall have 15 days from the date of such denial to make a repayment by check in the amount determined to be owed to the United States.

(ii) If, as a result of the State's request for reconsideration, NOAA modifies its determination of the amount required to be repaid by the

State, such State shall have 15 days from the date of such modification to make the repayment, if any, by check.

(4) If no repayment is received within the time period established by paragraph (b)(3) of this section, NOAA shall take necessary action to recover the amount due. Methods of recovery may include, but are not limited to:

(i) The modification or termination of a grant being received by such State under section 308(b);

(ii) The modification or termination of financial assistance under sections of the Act other than section 308(b);

(iii) The withholding of future financial assistance to the State under any section of the Act; and

(iv) The modification or termination of financial assistance being received by such State under other programs administered by the Department of Commerce, or the withholding of future financial assistance to such State under these programs.

(5) Actions undertaken under paragraph (b) of this section shall not in any way prejudice any rights of NOAA to pursue such other remedies as may be legally available and appropriate under the circumstances, including the referral of the claim against the State to the Department of Justice.

(c) If a State has received a written request for repayment under § 931.97(b)(1) NOAA may require such additional assurances as it finds necessary to protect the interests of the United States in the making of grants to the State.

§ 931.98 Coordination with other Federal agencies.

(a) No financial assistance for studying and planning provided under sections 308(b)(4)(B) and 308(c), for public facilities and public services provided under sections 308(b)(4)(B) and (d) (1) and (2), or for environmental and recreational projects provided under sections 308(b)(4)(C) and (d)(4) shall be awarded or disbursed if other Federal funds are available for such purposes, unless the Associate Administrator is assured that the Federal assistance to be received under section 308:

(1) Is to be used in addition to, and not in lieu of, any Federal funds which any coastal State or unit of local government may obtain under any other law; and

(2) Is not duplicative of other funding assistance.

(b)(1) The term "joint funding" means the coordination of multiple Federal assistance under the authority and provisions of the Joint Funding Simplification Act of 1974 (Pub. L. 93-510) in support of and consistent with the CEIP.

(2) When assistance from other Federal programs is insufficient to cover a

project or when combinations of assistance from multiple Federal programs are appropriate and beneficial, States and units of local government may request joint funding by the CEIP and other Federal programs in accordance with OMB Circular A-111, 41 FR 32040.

Subpart J—Intrastate Allocation of Financial Assistance

§ 931.110 General.

This subpart sets forth policies, requirements, and criteria required by sections 308 (e)(2) and (g)(2) and related to the intrastate allocation of financial assistance provided under section 308.

§ 931.111 Objective.

The objective of these requirements is to assure, to the maximum extent feasible, that section 308 assistance allotted to coastal States is distributed among units of local government in amounts which are proportional to need and in a manner which is equitable and expeditious.

§ 931.112 Intrastate allocation.

Each coastal State must establish a process to allocate its allotted section 308 assistance among State agencies and units of local government based on need for such assistance. This process may be periodically reviewed by the Associate Administrator to determine whether its application results in a distribution of assistance which, to the maximum extent practicable is proportional to need. States may amend or modify their intrastate allocation process subject to approval by the Associate Administrator. The extent of the process and the degree of documentation required will depend on the amount of assistance allotted to the State.

(a) The States which receive an allotment of \$250K or more in 308 grants and/or \$2 million in credit assistance in any fiscal year must develop an intrastate allocation process for approval by the Associate Administrator which must:

(1) Indicate the State agency designated under § 931.26 which will assume the lead role for administering the process;

(2) Describe the methods and procedures used to assure direct and effective participation by affected State agencies and units of local Government throughout the development and implementation of the allocation process;

(3) Describe the methods to be used to determine the priorities for the needs for financial assistance resulting from coastal energy activity;

(4) Include a method of assigning priority to projects for which assistance is not otherwise available from Federal, State, or private sources;

(5) Describe the methods to be used to allocate financial assistance and to evaluate and select projects based on criteria which include need, immediacy or severity of impacts, the fiscal capacity of units of local Government, and protection of the environment;

(6) Assure that information on the allocation of financial assistance is available to the public throughout the allocation process;

(7) Stipulate reasonable time limits for the allocation of financial assistance; and

(8) Establish a timely procedure by which units of local government may appeal to the State:

(i) the results of its allocation decisions; or

(ii) whether the State complied with the intrastate allocation process described in this section and approved by the Associate Administrator.

(b) Those States which receive an allotment of less than \$250K in 308 grants and/or \$2 million in credit assistance in any fiscal year provide an allocation process which will be submitted along with applications and requisitions for section 308 assistance. This process will not be subject to prior approval of the Associate Administrator. The submission by the State must describe:

(1) The methods used to determine the priorities for the needs for financial assistance resulting from coastal energy activity;

(2) The methods used to evaluate and select projects and to allocate financial assistance.

(3) The methods used to provide for formal notification of, direct consultation with, and comments by, affected State agencies and units of local government in the allocation of all 308 funds.

(c) Application/Requisition for 308 funds through September 30, 1977, from all coastal States will be subject to § 931.112(b) only.

(d) Eligible U.S. Territories are exempt from the requirements to provide an intrastate allocation process.

§ 931.113 Forms of assistance.

To the maximum extent practicable and in accord with the intrastate allocation process established pursuant to § 931.112:

(a) States that requisition the proceeds of grants under section 308 for purposes specified in Subparts D and G of this part must pass this assistance through to State agencies and units of local government in the form of grants;

(b) States that requisition the proceeds of grants under section 308 for purposes specified in Subparts E and F of this part must pass this assistance through to State agencies and units of general purpose local government in the form of grants;

(c) States that are allotted credit assistance under section 308 (d)(1) and (d)(2) must pass this assistance through to State agencies and units of general purpose local government using one of the following methods:

(1) State agencies may borrow to provide public facilities and public services needed to meet either State or local needs;

(2) State agencies may borrow to reloan or to grant this assistance to units of general purpose local government for public facilities and public services needed to meet local needs; or

(3) State agencies and units of general purpose local government may submit applications to the State to borrow from the Fund to provide needed public facilities and public services.

§ 931.114 Appeal to Associate Administrator.

(a) A unit of local government may appeal to the Associate Administrator to determine whether the State complied with the intrastate allocation process described in § 931.112 and approved by the Associate Administrator. Such an appeal must be made within 30 days after the unit of local government has exhausted the appeal procedure described in § 931.112. Such an appeal will be limited to the application of the State's process and the Associate Administrator may require additional information necessary to make an objective review and finding. The Associate Administrator will notify the State and unit of local government of his/her findings within 45 days of the receipt of the appeal.

(b) If the Associate Administrator finds that the State has not substantially complied with the approved process, section 308 assistance will be withheld until the State reallocates the assistance in accord with the approved process.

[FR Doc. 78-4788 Filed 2-22-78; 8:45 am]

THURSDAY, FEBRUARY 23, 1978
PART V



**ENVIRONMENTAL
PROTECTION
AGENCY**

■

KRAFT PULP MILLS

**Standards of Performance for
New Stationary Sources and
Availability of Draft Guideline
Document**

Register
of
Proposed
Rules

[6560-01]

THE STANDARDS

Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL PROTECTION
AGENCY

SUBCHAPTER C—AIR PROGRAMS

[FRL 833-1]

PART 60—STANDARDS OF PERFORMANCE
FOR NEW STATIONARY SOURCES

Kraft Pulp Mills

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The standards limit emissions of total reduced sulfur (TRS) and particulate matter from new, modified, and reconstructed kraft pulp mills. The standards implement the Clean Air Act and are based on the Administrator's determination that emissions from kraft pulp mills contribute significantly to air pollution. The intended effect of these standards is to require new, modified, and reconstructed kraft pulp mills to use the best demonstrated system of continuous emission reduction.

EFFECTIVE DATE: February 23, 1978.

ADDRESSES: The Standards Support and Environmental Impact Statement (SSEIS) may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, N.C. 27711 (specify "Standards Support and Environmental Impact Statement, Volume 2: Promulgated Standards of Performance for Kraft Pulp Mills" (EPA-450/2-76-014b)). Copies of all comment letters received from interested persons participating in this rulemaking are available for inspection and copying during normal business hours at EPA's Public Information Reference Unit, Room 2922 (EPA Library), 401 M Street SW., Washington, D.C.

FOR FURTHER INFORMATION
CONTACT:

Don R. Goodwin, Emission Standards and Engineering Division, Environmental Protection Agency, Research Triangle Park, N.C. 27711, telephone No. 919-541-5271.

SUPPLEMENTARY INFORMATION: On September 24, 1976 (41 FR 42012), standards of performance were proposed for new, modified, and reconstructed kraft pulp mills under section 111 of the Clean Air Act, as amended. The significant comments that were received during the public comment period have been carefully reviewed and considered and, where determined by the Administrator to be appropriate, changes have been included in this notice of final rulemaking.

The standards limit emissions of particulate matter from three affected facilities at kraft pulp mills. The limits are: 0.10 gram per dry standard cubic meter (g/dscm) at 8 percent oxygen for recovery furnaces, 0.10 gram per kilogram of black liquor solids (dry weight) (g/kg BLS) for smelt dissolving tanks, 0.15 g/dscm at 10 percent oxygen for lime kilns when burning gas, and 0.30 g/dscm at 10 percent oxygen for lime kilns when burning oil. Visible emissions from recovery furnaces are limited to 35 percent opacity.

The standards also limit emissions of TRS from eight affected facilities at kraft pulp mills. The limits are: 5 parts per million (ppm) by volume at 10 percent oxygen from the digester systems, multiple-effect evaporator systems, brown stock washer systems, black liquor oxidation systems, and condensate stripper systems; 5 ppm by volume at 8 percent oxygen from straight kraft recovery furnaces, 8 ppm by volume at 10 percent oxygen from lime kilns; and 25 ppm by volume at 8 percent oxygen from cross recovery furnaces, which are defined as furnaces burning at least 7 percent neutral sulfite semi-chemical (NSSC) liquor and having a green liquor sulfidity of at least 28 percent. In addition, TRS emissions from smelt dissolving tanks are limited to 0.0084 g/kg BLS.

The proposed TRS standard for the lime kiln has been changed, a separate TRS standard for cross recovery furnaces has been developed, and the proposed format of the standards for smelt dissolving tanks, digesters, multiple-effect evaporators, brown stock washers, black liquor oxidation and condensate strippers have been changed. The TRS, particulate matter and opacity standards for the other facilities, however, are essentially the same as those proposed.

It should be noted that standards of performance for new sources established under section 111 of the Clean Air Act reflect emission limits achievable with the best adequately demonstrated technological system of continuous emission reduction considering the cost of achieving such emission reductions and any nonair quality health, environmental, and energy impacts. State implementation plans (SIPs) approved or promulgated under section 110 of the Act, on the other hand, must provide for the attainment and maintenance of national ambient air quality standards (NAAQS) designed to protect public health and welfare. For that purpose SIPs must in some cases require greater emission reductions than those required by standards of performance for new sources. Section 173(2) of the Clean Air Act, as amended in 1977, requires, among other things, that a new

or modified source constructed in an area which exceeds the NAAQS must reduce emissions to the level which reflects the "lowest achievable emission rate" for such category of source, unless the owner or operator demonstrates that the source cannot achieve such an emission rate. In no event can the emission rate exceed any applicable standard of performance.

A similar situation may arise when a major emitting facility is to be constructed in a geographic area which falls under the prevention of significant deterioration of air quality provisions of the Act (Part C). These provisions require, among other things, that major emitting facilities to be constructed in such areas are to be subject to best available control technology. The term "best available control technology" (BACT) means "an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this Act emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines it achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of each such pollutant. In no event shall application of 'best available control technology' result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to section 111 or 112 of this Act."

Standards of performance should not be viewed as the ultimate in achievable emission control and should not preclude the imposition of a more stringent emission standard, where appropriate. For example, cost of achievement may be an important factor in determining standards of performance applicable to all areas of the country (clean as well as dirty). Costs must be accorded far less weight in determining the "lowest achievable emission rate" for new or modified sources locating in areas violating statutorily-mandated health and welfare standards. Although there may be emission control technology available that can reduce emissions below those levels required to comply with standards of performance, this technology might not be selected as the basis of standards of performance due to costs associated with its use. This in no way should preclude its use in situations where cost is a lesser consideration, such as determination of the "lowest achievable emission rate."

In addition, States are free under section 116 of the Act to establish even more stringent emission limits than

those established under section 111 or those necessary to attain or maintain the NAAQS under section 110. Thus, new sources may in some cases be subject to limitations more stringent than standards of performance under section 111, and prospective owners and operators of new sources should be aware of this possibility in planning for such facilities.

ENVIRONMENTAL AND ECONOMIC IMPACT

The promulgated standards will reduce particulate emissions about 50 percent below requirements of the average existing State regulations. TRS emissions will be reduced by about 80 percent below requirements of the average existing State regulations, and this reduction will prevent odor problems from arising at most new kraft pulp mills. The secondary environmental impacts of the promulgated standard will be slight increases in water demand and wastewater treatment requirements. The energy impact of the promulgated standards will be small, increasing national energy consumption in 1980 by the equivalent of only 1.4 million barrels per year of No. 6 oil. The economic impact will be small with fifth-year annualized costs being estimated at \$33 million.

PUBLIC PARTICIPATION

Prior to proposal of the standards, interested parties were advised by public notice in the *FEDERAL REGISTER* of a meeting of the National Air Pollution Control Techniques Advisory Committee. In addition, copies of the proposed standards and the Standards Support and Environmental Impact Statement (SSEIS) were distributed to members of the kraft pulp industry and several environmental groups at the time of proposal. The public comment period extended from September 24, 1976, to March 14, 1977, and resulted in 42 comment letters with 28 of these letters coming from the industry, 12 from various regulatory agencies, and two from U.S. citizens. Several comments resulted in changes to the proposed standards. A detailed discussion of the comments and changes which resulted is presented in Volume 2 of the SSEIS. A summary is presented here.

SIGNIFICANT COMMENTS AND CHANGES MADE IN THE PROPOSED REGULATIONS

Most of the comment letters received contained multiple comments. The most significant comments and changes made to the proposed regulations are discussed below.

IMPACTS OF THE PROPOSED STANDARDS

Several commenters expressed concern about the increased energy consumption which would result from

compliance with proposed standards. These commenters felt that this would conflict with the Department of Energy's goal to reduce total energy consumption in the pulp and paper industry by 14 percent. This factor was considered in the analysis of the energy impact associated with the standards and is discussed in the SSEIS. Although the standards will increase the difficulty of attaining this energy reduction goal, the 4.3 percent increase in energy usage that will be required by new, modified, or reconstructed kraft pulp mills to comply with the standards is considered reasonable in comparison to the benefits which will result from the corresponding reduction in TRS and particulate matter emissions.

EMISSION CONTROL TECHNOLOGY

Most of the comments received regarding emission control technology concerned the application of this technology to either lime kilns or recovery furnaces. A few comments, however, expressed concern with the use of the oxygen correction factor included in the proposed standards for both lime kilns and recovery furnaces. These commenters pointed out that adjusting the concentration of particulate matter and TRS emissions to 10 percent oxygen for lime kilns and 8 percent oxygen for recovery furnaces only when the oxygen concentration exceeded these values effectively placed more stringent standards on the most energy-efficient operators. To ensure that the standard is equitable for all operators, these commenters suggested that the measured particulate matter and TRS concentrations should always be adjusted to 10 percent oxygen for the lime kiln and 8 percent oxygen for the recovery furnace.

These comments are valid. Requiring a lime kiln or recovery furnace with a low oxygen concentration to meet the same emission concentration as a lime kiln or recovery furnace with a high oxygen concentration would effectively place a more stringent emission limit on the kiln or furnace with the low oxygen concentration. Consequently, the promulgated standards require correction of particulate matter and TRS concentrations to 10 percent or 8 percent oxygen, as appropriate, in all cases.

Lime Kilns. Numerous comments were received on the emission control technology for lime kilns. The main points questioned by the commenters were: (a) Whether caustic scrubbing is effective in reducing TRS emissions from lime kilns; (b) whether an overdesign of the mud washing facilities at lime kiln E was responsible for the lower TRS emissions observed at this lime kiln; and (c) the adequacy of the data base used in developing the TRS standard.

The effectiveness of caustic scrubbing is substantiated by comparison of TRS emissions during brief periods when caustic was not being added to the scrubber at lime kiln E, with TRS emissions during normal operation at lime kiln E when caustic is being added to the scrubber. These observations clearly indicate that TRS emissions would be higher if caustic was not used in the scrubber. The ability of caustic scrubbing to reduce TRS emissions is also substantiated by the experience at another kraft pulp mill which was able to reduce TRS emissions from its lime kiln from 40-50 ppm to about 20 ppm merely by adding caustic to the scrubber. These factors, coupled with the emission data showing higher TRS emissions from those lime kilns which employed only efficient mud washing and good lime kiln process control, clearly show that caustic scrubbing reduces TRS emissions.

The mud washing facilities at lime kiln E are larger than those at other kraft pulp mills of equivalent pulp capacity. This "overdesign" resulted from initial plans of the company to process lime mud from waste water treatment. These waste water treatment plans were later abandoned. Since the quality or efficiency of mud washing has been shown to be a significant factor in reducing TRS emissions from lime kilns, the larger mud washing facilities at lime kiln E undoubtedly contributed to the low TRS emissions observed at this kiln. With the data available, however, it is not possible to separate the relative contribution of these mud washing facilities to the low TRS emissions observed from the relative contributions of good process operation of the lime kiln and caustic scrubbing.

Comments questioning the adequacy of the data base used in developing the standards for lime kilns were mainly directed toward the following points: the TRS standard was based on only one lime kiln; sampling losses which may have occurred during testing were not taken into account; and no lime kiln met both the TRS standard and the particulate standard.

As mentioned above, the TRS standard is based upon the emission control system installed at lime kiln E (i.e., efficient mud washing, good lime kiln process operation, and caustic scrubbing). While it is true that no other lime kiln in the United States is currently achieving the TRS emission levels observed at lime kiln E, there is no other lime kiln in the United States which is using the same emission control system that is employed at this facility. As discussed in the SSEIS, an analysis of the various parameters influencing TRS emissions from lime kilns indicates that this system of emission reduction could be applied to

all new, modified, or reconstructed lime kilns and achieve the same reduction in emissions as observed at lime kiln E. Section 111 of the Clean Air Act requires that "standards of performance reflect the degree of emission reduction achievable through the application of the best system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated for that category of sources." Litigation of standards of performance has resulted in clarification of the term "adequately demonstrated." In *Portland Cement Association v. Ruckelshaus* (486 F. 2d 375, D.C. Circuit, 1973), the standards of performance were viewed by the Court as "technology-forcing." Thus, while a system of emission reduction must be available for use to be considered adequately demonstrated, it does not have to be in routine use. However, in order to ensure that the numerical emission limit selected was consistent with proper operation and maintenance of the emission control system on lime kiln E, continuous monitoring data was examined. This analysis indicated that an emission source test of lime kiln E would have found TRS emission above 5 ppm greater than 5 percent of the time. This analysis also indicated, however, that it was very unlikely that an emission source test of lime kiln E would have found TRS emissions above 8 ppm. Thus, it appeared that the 5 ppm TRS numerical emission limit included in the proposed standard for lime kilns was too stringent. Accordingly, the numerical emission limit included in the promulgated TRS standard for lime kilns has been revised to 8 ppm. As discussed later in this preamble, consistent with this change in the numerical emission limit, the excess emissions allowance included within the emission monitoring requirements has been eliminated.

This does not reflect a change in the basis for the standard. The standard is still based on the best system of emission reduction, considering costs, for controlling TRS emissions from lime kilns (i.e., efficient mud washing, good lime kiln process operation, and caustic scrubbing). This system, or one equivalent to it, will still be required to comply with the standard.

Since proposal of the standards, sample losses of up to 20 percent during emission source testing have been confirmed. Although these losses were not considered in selecting the numerical emission limit included in the proposed TRS emission standard, they have been considered in selecting the numerical emission limit included in the promulgated standard. Also, since the amount of sample loss that

occurs within the TRS emission measurement system during source testing can be determined, procedures have been added to Reference Method 16 requiring determination of these losses during each source test and adjustment of the emission data obtained to take these losses into account.

With regard to the ability of a lime kiln to comply with both the TRS emission standard and the particulate emission standard simultaneously, caustic scrubbing will tend to increase particulate emissions due to release of sodium fume from the scrubbing liquor. Compared to the concentration of particulate matter permitted in the gases discharged to the atmosphere, however, the potential contribution of sodium fume from caustic scrubbing is quite small. Consequently, with proper operation and maintenance, sodium fume due to caustic scrubbing will not cause particulate emissions from a lime kiln to exceed the numerical emission limit included in the promulgated standard.

Recovery Furnace. A number of comments were received regarding both the proposed TRS emission standard and the proposed particulate emission standard for recovery furnaces. Basically, the major issue was whether a cross recovery furnace could comply with the 5 ppm TRS standard or whether a separate standard was necessary.

Review of the data and information submitted with these comments indicates that the operation of cross recovery furnaces is substantially different from that of straight kraft recovery furnaces. The sulfidity of the black liquor burned in cross recovery furnaces and the heat content of the liquor, both of which are significant factors influencing TRS emissions, are considerably different from the levels found in straight kraft recovery furnaces.

Analysis of the data indicated that TRS emissions were generally less than 25 ppm, with only occasional excursions exceeding this level. Consequently, the promulgated TRS emission standard has been revised to include a separate TRS numerical emission limit of 25 ppm for cross recovery furnaces.

Smelt Dissolving Tank. Numerous comments were received concerning the format of the proposed TRS and particulate emission standards for smelt dissolving tanks. These comments pointed out that standards in terms of emissions per unit of air-dried pulp were inequitable for kraft pulp mills which produced low-yield pulps since both TRS and particulate emissions from the smelt dissolving tanks are proportional to the tons of black liquor solids fed into the tanks. The black liquor solids produced per ton of air-dried pulp, however, can vary sub-

stantially from mill to mill. A standard in terms of emissions per unit of air-dried pulp, therefore, requires greater control of emissions at kraft pulp mills which use low-yield pulps (higher solids-to-pulp ratio).

Review of these comments does indeed indicate that the format of the proposed standards was inequitable. The format of the promulgated standards, therefore, has been revised to emissions per unit of black liquor solids fed to the smelt dissolving tanks. Since the percent solids and black liquor flow rate to the recovery furnace is routinely monitored at kraft pulp mills, the weight of black liquor solids corresponding to a particular emissions period will be easy to determine.

Brown Stock Washers. Several comments expressed concern about combustion of the high volume-low TRS concentration gases discharged from brown stock washers and black liquor oxidation facilities in recovery furnaces without facing a serious risk of explosions. As discussed in the SSEIS, information obtained from two kraft pulp mill operators indicates that this practice is both safe and reliable when it is accompanied by careful engineering and operating practices. Danger of an explosion occurring is essentially eliminated by introducing the gases high in the furnace. Since some older furnaces do not have the capability to accept large volumes of gases at higher combustion ports, this practice may not be safe for some existing furnaces. In addition, the costs associated with altering these furnaces to accept these gases are frequently prohibitive. Consequently, the promulgated standards include an exemption for new, modified, or reconstructed brown stock washers and black liquor oxidation facilities within existing kraft pulp mills where combustion of these gases in an existing facility is not feasible from a safety or economic standpoint.

CONTINUOUS MONITORING

Numerous comments were received concerning the proposed continuous monitoring requirements. Generally, these comments questioned the requirement to install TRS monitors in light of the absence of performance specifications for these monitors.

At the time of proposal of the standards, both EPA and the kraft pulp mill industry were engaged in developing performance specifications for TRS continuous emission monitoring systems. It was expected that this work would lead to performance specifications for these monitoring systems by the time the standards of performance were promulgated. Unfortunately, this is not the case. In a joint EPA/industry effort, the compatibility of various TRS emission monitoring

methods with Reference Method 16, which is the performance test method to determine TRS emissions, is still under study. There is little doubt but that these TRS emission monitoring systems will be shown to be compatible with Reference Method 16, and that performance specifications for these systems will be developed. Consequently, the promulgated standards include TRS continuous emission monitoring requirements. These requirements, however, will not become effective until performance specifications for TRS continuous emission monitoring systems have been developed. To accommodate this situation, not only for the promulgated standards for kraft pulp mills, but also for standards of performance that may be developed in the future that may also face this situation, section 60.13 of the General Provisions for subpart 60 is amended to provide that continuous monitoring systems need not be installed until performance specifications for these systems are promulgated under Appendix B to subpart 60. This will ensure that all facilities which are covered by standards of performance will eventually install continuous emission monitoring systems where required.

EXCESS EMISSIONS

Numerous comments were received which were concerned with the excess emission allowances and the reporting requirements for excess emissions. In general, these comments reflected a lack of understanding with regard to the concept of excess emissions. Consequently, a brief review of this concept is appropriate.

Standards of performance have two major objectives. The first is installation of the best system of emission reduction, considering costs; and the second is continued proper operation and maintenance of the system throughout its useful life. Since the numerical emission limit included in standards of performance is selected to reflect the performance of the best system of emission reduction under conditions of proper operation and maintenance, the performance test, under 40 CFR 60.8 represents the ability of the source to meet these objectives. Performance tests, however, are often time consuming and complex. As a result, while the performance test is an excellent mechanism for achieving these objectives, it is rather cumbersome and inconvenient for routinely achieving these objectives. Therefore, the Agency believes that continuous monitors must play an important role in meeting these objectives.

Excess emissions are defined as emissions exceeding the numerical emission limit included in a standard of performance. Continuous emission monitoring, therefore, identifies periods of excess emissions and when com-

bined with the requirement that these periods be reported to EPA, it provides the Agency with a useful mechanism for achieving the previously mentioned objectives.

Continuous emission monitoring, however, will identify all periods of excess emissions, including those which are not the result of improper operation and maintenance. Excess emissions due to start-ups, shutdowns, and malfunctions, for example, are unavoidable or beyond the control of an owner or operator and cannot be attributed to improper operation and maintenance. Similarly, excess emissions as a result of some inherent variability or fluctuation within a process which influences emissions cannot be attributed to improper operation and maintenance, unless these fluctuations could be controlled by more carefully attending to those process operating parameters during routine operation which have little effect on operation of the process, but which may have a significant effect on emissions.

To quantify the potential for excess emissions due to inherent variability in a process, continuous monitoring data are used whenever possible to calculate an excess emission allowance. For TRS emissions at kraft pulp mills, this allowance is defined as follows. If a calendar quarter is divided into discrete contiguous 12-hour time periods, the excess emission allowance is expressed as the percentage of these time periods. Excess emissions may occur as the result of unavoidable variability within the kraft pulping process. Thus, the excess emissions allowance represents the potential for excess emissions under conditions of proper operation and maintenance in the absence of start-ups, shutdowns and malfunctions, and is used as a guideline or screening mechanism for interpreting the data generated by the excess emission reporting requirements.

Although the excess emission reporting requirements provide a mechanism for achieving the objective of proper operation and maintenance of the best system of emission reduction, this mechanism is not necessarily a direct indicator of improper operation and maintenance. Consequently, excess emission reports must be reviewed and interpreted for proper decisionmaking.

In general, the comments received concerning the excess emission reporting requirements questioned: (1) The adequacy of the TRS excess emission allowance for lime kilns and (2) the lack of a TRS excess emission allowance for recovery furnaces.

With regard to the adequacy of the TRS excess emissions allowance for lime kilns, a reevaluation of the TRS emission data from lime kiln E led the Agency to the conclusion that, for a TRS emission limit of 5 ppm, an

excess emission allowance of 6 percent was appropriate. However, a similar analysis also indicates that an excess emission allowance is not appropriate at a TRS emission level of 8 ppm. Accordingly, the excess emission reporting requirements included in the promulgated standard for lime kilns contains no excess emission allowance. This does not represent a change in the basis of the standard. The standard will still require installation of the best system of emission reduction, considering costs (i.e., efficient mud washing, good lime kiln process operation, and caustic scrubbing; or an alternative system equivalent to the performance of this system).

With regard to the lack of a TRS excess emission allowance for recovery furnaces, at the time of proposal of the standards, no TRS continuous emission monitoring data were available from a well-controlled and well operated recovery furnace which could be used to determine an excess emission allowance. Several months of TRS continuous emission monitoring data, however, were submitted with the comments received from the operator of recovery furnace D concerning this point.

A review of the data indicates that, while some of the excursions of TRS emissions above 5 ppm reflected either improper operation and maintenance, or start-ups, shutdowns, or malfunctions, most of these excursions reflected unavoidable normal variability in the operation of a kraft pulp mill recovery furnace. Discounting those excursions in emissions from the data which were due to improper operation and maintenance, or start-ups, shutdowns, or malfunctions indicates that an excess emission allowance of 1 percent is appropriate for all recovery furnaces.

Including an excess emissions allowance in the promulgated standards for recovery furnaces, but not for lime kilns, is a reversal of the proposed requirements. Including such an allowance for recovery furnaces but not for lime kilns, however, is consistent with the nature of the different emission control systems which were selected as the bases for these standards. The emission control system upon which the TRS standard for recovery furnaces is based consists of black liquor oxidation and good process operation of the recovery furnace for direct recovery furnaces, and good process operation alone for indirect recovery furnaces. Neither of these emission control systems are particularly well suited to controlling fluctuations in the kraft pulping process. Thus, fluctuations in the process tend to pass through the emission control system and show up as fluctuations in TRS emissions.

The emission control system upon which the TRS standard for lime kilns

is based consists of efficient mud washing, good process operation of the lime kiln, and caustic scrubbing of the gases discharged from the lime kiln. As with the emission control system upon which the standard for recovery furnaces is based, the first two emission control techniques (i.e., mud washing and good process operation) are not particularly well suited to controlling fluctuations in the kraft pulping process. The third emission control technique, however, caustic scrubbing, is an "add-on" emission control technique that can be designed to accommodate fluctuations in TRS emissions and minimize or essentially eliminate these fluctuations.

EMISSION TESTING

A few comments were received which questioned the validity of the results obtained by Reference Method 16, due to sample losses and sulfur dioxide (SO₂) interference.

With regard to the validity of the results obtained by Reference Method 16, as mentioned earlier, during the emission testing program, it was not widely known that sample losses could occur within the TRS emission measurement system. Since proposal of the standards, however, sample losses of up to 20 percent during emission source testing have been confirmed. Although these losses were not considered in selecting the numerical emission limits included in the proposed TRS emission standards, they have been considered in selecting the numerical emission limit included in the promulgated standards. Also, since the amount of sample loss that occurs within the TRS emission measurement system during source testing can be determined, procedures have been added to Reference Method 16 requiring determination of these losses during each source test and adjustment of the emission data obtained to take these losses into account. This will ensure that the TRS emission data obtained during a performance test are accurate.

It has also been confirmed that high concentrations of SO₂ will interfere with the determination of TRS emissions to some extent. At this point, however, it is not known what SO₂ concentration levels will result in a significant loss of accuracy in determining TRS emissions. The ability of a citrate scrubber to selectively remove SO₂ prior to measurement of TRS emissions is now being tested. In addition, various chromatographic columns might exist which would effectively resolve this problem. As soon as an appropriate technique is developed to overcome this problem, Reference Method 16 will be amended.

This problem of SO₂ interference will not present major difficulties to the use of Reference Method 16. Relatively high SO₂ concentration levels were observed in only one EPA emission source test. Accordingly, high SO₂ concentration levels are probably not a frequent occurrence within kraft pulp mills. More importantly, however, high SO₂ concentrations only interfere with the determination of methyl mercaptan in the emission measurement system outlined in Reference Method 16. Since methyl mercaptan is usually only a small contributor to total TRS emissions, neglecting methyl mercaptan where this interference occurs should not seriously affect the determination of TRS emissions. Consequently, Reference Method 16 can be used to enforce the promulgated standards without major difficulties.

Miscellaneous: The effective date of this regulation is February 24, 1976. Section 111(b)(1)(B) of the Clean Air Act provides that standards of performance or revisions of them become effective upon promulgation and apply to affected facilities, construction or modification of which was commenced after the date of proposal (September 24, 1976).

NOTE.—An economic assessment has been prepared as required under section 317 of the Act. This also satisfies the requirements of Executive Orders 11821 and OMB Circular A-107.

Dated: February 10, 1978.

BARBARA BLUM,
Acting Administrator.

Part 60 of Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

Subpart A—General Provisions

1. Section 60.13 is amended to clarify the provisions in paragraph (a) by revising paragraph (a) to read as follows:

§ 60.13 Monitoring requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring system under Appendix B to this part, unless:

(1) The continuous monitoring system is subject to the provisions of paragraphs (c)(2) and (c)(3) of this section, or

(2) otherwise specified in an applicable subpart or by the Administrator.

2. Part 60 is amended by adding subpart BB as follows:

Subpart BB—Standards of Performance for Kraft Pulp Mills

Sec.

60.280 Applicability and designation of affected facility.

60.281 Definitions.

60.282 Standard for particulate matter.
60.283 Standard for total reduced sulfur (TRS).
60.284 Monitoring of emissions and operations.
60.285 Test methods and procedures.

AUTHORITY: Secs. 111, 301(a) of the Clean Air Act, as amended [42 U.S.C. 7411, 7601(a)], and additional authority as noted below.

Subpart BB—Standards of Performance for Kraft Pulp Mills

60.280 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities in kraft pulp mills: digester system, brown stock washer system, multiple-effect evaporator system, black liquor oxidation system, recovery furnace, smelt dissolving tank, lime kiln, and condensate stripper system. In pulp mills where kraft pulping is combined with neutral sulfite semichemical pulping, the provisions of this subpart are applicable when any portion of the material charged to an affected facility is produced by the kraft pulping operation.

(b) Any facility under paragraph (a) of this section that commences construction or modification after September 24, 1976, is subject to the requirements of this subpart.

§ 60.281 Definitions.

As used in this subpart, all terms not defined herein shall have the same meaning given them in the Act and in Subpart A.

(a) "Kraft pulp mill" means any stationary source which produces pulp from wood by cooking (digesting) wood chips in a water solution of sodium hydroxide and sodium sulfide (white liquor) at high temperature and pressure. Regeneration of the cooking chemicals through a recovery process is also considered part of the kraft pulp mill.

(b) "Neutral sulfite semichemical pulping operation" means any operation in which pulp is produced from wood by cooking (digesting) wood chips in a solution of sodium sulfite and sodium bicarbonate, followed by mechanical defibrating (grinding).

(c) "Total reduced sulfur (TRS)" means the sum of the sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, that are released during the kraft pulping operation and measured by Reference Method 16.

(d) "Digester system" means each continuous digester or each batch digester used for the cooking of wood in white liquor, and associated flash tank(s), below tank(s), chip steamer(s), and condenser(s).

(e) "Brown stock washer system" means brown stock washers and associated knotters, vacuum pumps, and fil-

trate tanks used to wash the pulp following the digester system.

(f) "Multiple-effect evaporator system" means the multiple-effect evaporators and associated condenser(s) and hotwell(s) used to concentrate the spent cooking liquid that is separated from the pulp (black liquor).

(g) "Black liquor oxidation system" means the vessels used to oxidize, with air or oxygen, the black liquor, and associated storage tank(s).

(h) "Recovery furnace" means either a straight kraft recovery furnace or a cross recovery furnace, and includes the direct-contact evaporator for a direct-contact furnace.

(i) "Straight kraft recovery furnace" means a furnace used to recover chemicals consisting primarily of sodium and sulfur compounds by burning black liquor which on a quarterly basis contains 7 weight percent or less of the total pulp solids from the neutral sulfite semichemical process or has green liquor sulfidity of 28 percent or less.

(j) "Cross recovery furnace" means a furnace used to recover chemicals consisting primarily of sodium and sulfur compounds by burning black liquor which on a quarterly basis contains more than 7 weight percent of the total pulp solids from the neutral sulfite semichemical process and has a green liquor sulfidity of more than 28 percent.

(k) "Black liquor solids" means the dry weight of the solids which enter the recovery furnace in the black liquor.

(l) "Green liquor sulfidity" means the sulfidity of the liquor which leaves the smelt dissolving tank.

(m) "Smelt dissolving tank" means a vessel used for dissolving the smelt collected from the recovery furnace.

(n) "Lime kiln" means a unit used to calcine lime mud, which consists primarily of calcium carbonate, into quicklime, which is calcium oxide.

(o) "Condensate stripper system" means a column, and associated condensers, used to strip, with air or steam, TRS compounds from condensate streams from various processes within a kraft pulp mill.

§ 60.282 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere:

(1) From any recovery furnace any gases which:

(i) Contain particulate matter in excess of 0.10 g/dscm (0.044 gr/dscf) corrected to 8 percent oxygen.

(ii) Exhibit 35 percent opacity or greater.

(2) From any smelt dissolving tank any gases which contain particulate

matter in excess of 0.1 g/kg black liquor solids (dry weight) [0.2 lb/ton black liquor solids (dry weight)].

(3) From any lime kiln any gases which contain particulate matter in excess of:

(i) 0.15 g/dscm (0.067 gr/dscf) corrected to 10 percent oxygen, when gaseous fossil fuel is burned.

(ii) 0.30 g/dscm (0.13 gr/dscf) corrected to 10 percent oxygen, when liquid fossil fuel is burned.

§ 60.283 Standard for total reduced sulfur (TRS).

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere:

(1) From any digester system, brown stock washer system, multiple-effect evaporator system, black liquor oxidation system, or condensate stripper system any gases which contain TRS in excess of 5 ppm by volume on a dry basis, corrected to 10 percent oxygen, unless the following conditions are met:

(i) The gases are combusted in a lime kiln subject to the provisions of paragraph (a)(5) of this section; or

(ii) The gases are combusted in a recovery furnace subject to the provisions of paragraphs (a)(2) or (a)(3) of this section; or

(iii) The gases are combusted with other waste gases in an incinerator or other device, or combusted in a lime kiln or recovery furnace not subject to the provisions of this subpart, and are subjected to a minimum temperature of 1200° F. for at least 0.5 second; or

(iv) It has been demonstrated to the Administrator's satisfaction by the owner or operator that incinerating the exhaust gases from a new, modified, or reconstructed black liquor oxidation system or brown stock washer system in an existing facility is technologically or economically not feasible. Any exempt system will become subject to the provisions of this subpart if the facility is changed so that the gases can be incinerated.

(2) From any straight kraft recovery furnace any gases which contain TRS in excess of 5 ppm by volume on a dry basis, corrected to 8 percent oxygen.

(3) From any cross recovery furnace any gases which contain TRS in excess of 25 ppm by volume on a dry basis, corrected to 8 percent oxygen.

(4) From any smelt dissolving tank any gases which contain TRS in excess of 0.0084 g/kg black liquor solids (dry weight) [0.0168 lb/ton liquor solids (dry weight)].

(5) From any lime kiln any gases which contain TRS in excess of 8 ppm by volume on a dry basis, corrected to 10 percent oxygen.

§ 60.284 Monitoring of emissions and operations.

(a) Any owner or operator subject to the provisions of this subpart shall install, calibrate, maintain, and operate the following continuous monitoring systems:

(1) A continuous monitoring system to monitor and record the opacity of the gases discharged into the atmosphere from any recovery furnace. The span of this system shall be set at 70 percent opacity.

(2) Continuous monitoring systems to monitor and record the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from any lime kiln, recovery furnace, digester system, brown stock washer system, multiple-effect evaporator system, black liquor oxidation system, or condensate stripper system, except where the provisions of § 60.283(a)(1)(iii) or (iv) apply. These systems shall be located downstream of the control device(s) and the span(s) of these continuous monitoring system(s) shall be set:

(i) At a TRS concentration of 30 ppm for the TRS continuous monitoring system, except that for any cross recovery furnace the span shall be set at 50 ppm.

(ii) At 20 percent oxygen for the continuous oxygen monitoring system.

(b) Any owner or operator subject to the provisions of this subpart shall install, calibrate, maintain, and operate the following continuous monitoring devices:

(1) A monitoring device which measures the combustion temperature at the point of incineration of effluent gases which are emitted from any digester system, brown stock washer system, multiple-effect evaporator system, black liquor oxidation system, or condensate stripper system where the provisions of § 60.283(a)(1)(iii) apply. The monitoring device is to be certified by the manufacturer to be accurate within ± 1 percent of the temperature being measured.

(2) For any lime kiln or smelt dissolving tank using a scrubber emission control device:

(i) A monitoring device for the continuous measurement of the pressure loss of the gas stream through the control equipment. The monitoring device is to be certified by the manufacturer to be accurate to within a gage pressure of ± 500 pascals (ca. ± 2 inches water gage pressure).

(ii) A monitoring device for the continuous measurement of the scrubbing liquid supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ± 15 percent of design scrubbing liquid supply pressure. The pressure sensor or tap is to

be located close to the scrubber liquid discharge point. The Administrator may be consulted for approval of alternative locations.

(c) Any owner or operator subject to the provisions of this subpart shall, except where the provisions of § 60.283(a)(1)(iv) or § 60.283(a)(4) apply.

(1) Calculate and record on a daily basis 12-hour average TRS concentrations for the two consecutive periods of each operating day. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average total reduced sulfur concentrations provided by each continuous monitoring system installed under paragraph (a)(2) of this section.

(2) Calculate and record on a daily basis 12-hour average oxygen concentrations for the two consecutive periods of each operating day for the recovery furnace and lime kiln. These 12-hour averages shall correspond to the 12-hour average TRS concentrations under paragraph (c)(1) of this section and shall be determined as an arithmetic mean of the appropriate 12 contiguous 1-hour average oxygen concentrations provided by each continuous monitoring system installed under paragraph (a)(2) of this section.

(3) Correct all 12-hour average TRS concentrations to 10 volume percent oxygen, except that all 12-hour average TRS concentration from a recovery furnace shall be corrected to 8 volume percent using the following equation:

$$C_{\text{corr}} = C_{\text{meas}} \times (21 - X/21 - Y)$$

where:

C_{corr} = the concentration corrected for oxygen.

C_{meas} = the concentration uncorrected for oxygen.

X = the volumetric oxygen concentration in percentage to be corrected to (8 percent for recovery furnaces and 10 percent for lime kilns, incinerators, or other devices).

Y = the measured 12-hour average volumetric oxygen concentration.

(d) For the purpose of reports required under § 60.7(c), any owner or operator subject to the provisions of this subpart shall report periods of excess emissions as follows:

(1) For emissions from any recovery furnace periods of excess emissions are:

(i) All 12-hour averages of TRS concentrations above 5 ppm by volume for straight kraft recovery furnaces and above 25 ppm by volume for cross recovery furnaces.

(ii) All 6-minute average opacities that exceed 35 percent.

(2) For emissions from any lime kiln, periods of excess emissions are all 12-hour average TRS concentration above 8 ppm by volume.

(3) For emissions from any digester system, brown stock washer system,

multiple-effect evaporator system, black liquor oxidation system, or condensate stripper system periods of excess emissions are:

(i) All 12-hour average TRS concentrations above 5 ppm by volume unless the provisions of § 60.283(a)(1)(i), (ii), or (iv) apply; or

(ii) All periods in excess of 5 minutes and their duration during which the combustion temperature at the point of incineration is less than 1200° F. where the provisions of § 60.283(a)(1)(ii) apply.

(e) The Administrator will not consider periods of excess emissions reported under paragraph (d) of this section to be indicative of a violation of § 60.11(d) provided that:

(1) The percent of the total number of possible contiguous periods of excess emissions in a quarter (excluding periods of startup, shutdown, or malfunction and periods when the facility is not operating) during which excess emissions occur does not exceed:

(i) One percent for TRS emissions from recovery furnaces.

(ii) Six percent for average opacities from recovery furnaces.

(2) The Administrator determines that the affected facility, including air pollution control equipment, is maintained and operated in a manner which is consistent with good air pollution control practice for minimizing emissions during periods of excess emissions.

§ 60.285 Test methods and procedures.

(a) Reference methods in Appendix A of this part, except as provided under § 60.8(b), shall be used to determine compliance with § 60.282(a) as follows:

(1) Method 5 for the concentration of particulate matter and the associated moisture content.

(2) Method 1 for sample and velocity traverses.

(3) When determining compliance with § 60.282(a)(2), Method 2 for velocity and volumetric flow rate.

(4) Method 3 for gas analysis, and

(5) Method 9 for visible emissions.

(b) For Method 5, the sampling time for each run shall be at least 60 minutes and the sampling rate shall be at least 0.85 dscm/hr (0.53 dscf/min) except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the Administrator. Water shall be used as the cleanup solvent instead of acetone in the sample recovery procedure outlined in Method 5.

(c) Method 17 (in-stack filtration) may be used as an alternate method for Method 5 for determining compliance with § 60.282(a)(1)(i). *Provided*, That a constant value of 0.009 g/dscm (0.004 gr/dscf) is added to the results of Method 17 and the stack tempera-

ture is no greater than 205° C (ca. 400° F). Water shall be used as the cleanup solvent instead of acetone in the sample recovery procedure outlined in Method 17.

(d) For the purpose of determining compliance with § 60.283(a) (1), (2), (3), (4), and (5), the following reference methods shall be used:

(1) Method 16 for the concentration of TRS.

(2) Method 3 for gas analysis, and

(3) When determining compliance with § 60.283(a)(4), use the results of Method 2, Method 16, and the black liquor solids feed rate in the following equation to determine the TRS emission rate.

$$E = (C_{\text{H}_2\text{S}}F_{\text{H}_2\text{S}} + C_{\text{MeSH}}F_{\text{MeSH}} + C_{\text{DMS}}F_{\text{DMS}} + C_{\text{DMDS}}F_{\text{DMDS}}) (Q_{\text{SL}}/BLS)$$

Where:

E = mass of TRS emitted per unity of black liquor solids (g/kg) (lb/ton)

$C_{\text{H}_2\text{S}}$ = average concentration of hydrogen sulfide (H_2S) during the test period, PPM.

C_{MeSH} = average concentration of methyl mercaptan (MeSH) during the test period, PPM.

C_{DMS} = average concentration of dimethyl sulfide (DMS) during the test period, PPM.

C_{DMDS} = average concentration of dimethyl disulfide (DMDS) during the test period, PPM.

$F_{\text{H}_2\text{S}}$ = 0.001417 g/m³ PPM for metric units
= 0.08844 lb/ft³ PPM for English units

F_{MeSH} = 0.00200 g/m³ PPM for metric units
= 0.1248 lb/ft³ PPM for English units

F_{DMS} = 0.002583 g/m³ PPM for metric units
= 0.1612 lb/ft³ PPM for English units

F_{DMDS} = 0.003917 g/m³ PPM for metric units
= 0.2445 lb/ft³ PPM for English units

Q_{SL} = dry volumetric stack gas flow rate corrected to standard conditions, dscm/hr (dscf/hr)

BLS = black liquor solids feed rate, kg/hr (lb/hr)

(4) When determining whether a furnace is straight kraft recovery furnace or a cross recovery furnace, TAPPI Method T.624 shall be used to determine sodium sulfide, sodium hydroxide and sodium carbonate. These determinations shall be made three times daily from the green liquor and the daily average values shall be converted to sodium oxide (Na_2O) and substituted into the following equation to determine the green liquor sulfidity:

$$GLS = 100 \quad C_{\text{Na}_2\text{S}}/C_{\text{Na}_2\text{O}} + C_{\text{NaOH}} + C_{\text{Na}_2\text{CO}_3}$$

Where:

GLS = percent green liquor sulfidity
 $C_{\text{Na}_2\text{S}}$ = average concentration of Na_2S expressed as Na_2O (mg/l)

C_{NaOH} = average concentration of NaOH expressed as Na_2O (mg/l)

$C_{\text{Na}_2\text{CO}_3}$ = average concentration of Na_2CO_3 expressed as Na_2O (mg/l)

(e) All concentrations of particulate matter and TRS required to be measured by this section from lime kilns or incinerators shall be corrected 10 volume percent oxygen and those concentrations from recovery furnaces

shall be corrected to 8 volume percent oxygen. These corrections shall be made in the manner specified in § 60.284(c)(3).

APPENDIX A—REFERENCE METHODS

(3) Method 16 and Method 17 are added to Appendix A as follows:

METHOD 16. SEMICONTINUOUS DETERMINATION OF SULFUR EMISSIONS FROM STATIONARY SOURCES

Introduction

The method described below uses the principle of gas chromatographic separation and flame photometric detection. Since there are many systems or sets of operating conditions that represent usable methods of determining sulfur emissions, all systems which employ this principle, but differ only in details of equipment and operation, may be used as alternative methods, provided that the criteria set below are met.

1. Principle and Applicability.

1.1 Principle. A gas sample is extracted from the emission source and diluted with clean dry air. An aliquot of the diluted sample is then analyzed for hydrogen sulfide (H_2S), methyl mercaptan ($MeSH$), dimethyl sulfide (DMS) and dimethyl disulfide ($DMDS$) by gas chromatographic (GC) separation and flame photometric detection (FPD). These four compounds are known collectively as total reduced sulfur (TRS).

1.2 Applicability. This method is applicable for determination of TRS compounds from recovery furnaces, lime kilns, and smelt dissolving tanks at kraft pulp mills.

2. Range and Sensitivity.

2.1 Range. Coupled with a gas chromatographic system utilizing a ten milliliter sample size, the maximum limit of the FPD for each sulfur compound is approximately 1 ppm. This limit is expanded by dilution of the sample gas before analysis. Kraft mill gas samples are normally diluted tenfold (9:1), resulting in an upper limit of about 10 ppm for each compound.

For sources with emission levels between 10 and 100 ppm, the measuring range can be best extended by reducing the sample size to 1 milliliter.

2.2 Using the sample size, the minimum detectable concentration is approximately 50 ppb.

3. Interferences.

3.1 Moisture Condensation. Moisture condensation in the sample delivery system, the analytical column, or the FPD burner block can cause losses or interferences. This potential is eliminated by heating the sample line, and by conditioning the sample with dry dilution air to lower its dew point below the operating temperature of the GC/FPD analytical system prior to analysis.

3.2 Carbon Monoxide and Carbon Dioxide. CO and CO_2 have substantial desensitizing effect on the flame photometric detector even after 9:1 dilution. Acceptable systems must demonstrate that they have eliminated this interference by some procedure such as eluting these compounds before any of the compounds to be measured. Compliance with this requirement can be demonstrated by submitting chromatograms of calibration gases with and without CO_2 in the diluent gas. The CO_2 level should be approximately 10 percent for the case with CO_2 present. The two chromatograms should show agreement within the precision limits of Section 4.1.

3.3 Particulate Matter. Particulate matter in gas samples can cause interference by eventual clogging of the analytical system. This interference must be eliminated by use of a probe filter.

3.4 Sulfur Dioxide. SO_2 is not a specific interferent but may be present in such large amounts that it cannot be effectively separated from other compounds of interest. The procedure must be designed to eliminate this problem either by the choice of separation columns or by removal of SO_2 from the sample.

Compliance with this section can be demonstrated by submitting chromatograms of calibration gases with SO_2 present in the same quantities expected from the emission source to be tested. Acceptable systems shall show baseline separation with the amplifier attenuation set so that the reduced sulfur compound of concern is at least 50 percent of full scale. Base line separation is defined as a return to zero $\pm$ percent in the interval between peaks.

4. Precision and Accuracy.

4.1 GC/FPD and Dilution System Calibration Precision. A series of three consecutive injections of the same calibration gas, at any dilution, shall produce results which do not vary by more than ± 3 percent from the mean of the three injections.

4.2 GC/FPD and Dilution System Calibration Drift. The calibration drift determined from the mean of three injections made at the beginning and end of any 8-hour period shall not exceed $\pm$ percent.

4.3 System Calibration Accuracy. The complete system must quantitatively transport and analyze with an accuracy of 20 percent. A correction factor is developed to adjust calibration accuracy to 100 percent.

5. Apparatus (See Figure 16-1).

5.1.1 Probe. The probe must be made of inert material such as stainless steel or glass. It should be designed to incorporate a filter and to allow calibration gas to enter the probe at or near the sample entry point. Any portion of the probe not exposed to the stack gas must be heated to prevent moisture condensation.

5.1.2 Sample Line. The sample line must be made of Teflon,¹ no greater than 1.3 cm (1/2) inside diameter. All parts from the probe to the dilution system must be thermostatically heated to 120° C.

5.1.3 Sample Pump. The sample pump shall be a leakless Teflon-coated diaphragm type or equivalent. If the pump is upstream of the dilution system, the pump head must be heated to 120° C.

5.2 Dilution System. The dilution system must be constructed such that all sample contacts are made of inert materials (e.g., stainless steel or Teflon). It must be heated to 120° C. and be capable of approximately a 9:1 dilution of the sample.

5.3 Gas Chromatograph. The gas chromatograph must have at least the following components:

5.3.1 Oven. Capable of maintaining the separation column at the proper operating temperature $\pm 1^\circ C$.

5.3.2 Temperature Gauge. To monitor column oven, detector, and exhaust temperature $\pm 1^\circ C$.

5.3.3 Flow System. Gas metering system to measure sample, fuel, combustion gas, and carrier gas flows.

¹Mention of trade names or specific products does not constitute endorsement by the Environmental Protection Agency.

5.3.4 Flame Photometric Detector.

5.3.4.1 Electrometer. Capable of full scale amplification of linear ranges of 10^{-9} to 10^{-4} amperes full scale.

5.3.4.2 Power Supply. Capable of delivering up to 750 volts.

5.3.4.3 Recorder. Compatible with the output voltage range of the electrometer.

5.4 Gas Chromatograph Columns. The column system must be demonstrated to be capable of resolving the four major reduced sulfur compounds: H_2S , $MeSH$, DMS , and $DMDS$. It must also demonstrate freedom from known interferences.

To demonstrate that adequate resolution has been achieved, the tester must submit a chromatograph of a calibration gas containing all four of the TRS compounds in the concentration range of the applicable standard. Adequate resolution will be defined as base line separation of adjacent peaks when the amplifier attenuation is set so that the smaller peak is at least 50 percent of full scale. Base line separation is defined in Section 3.4. Systems not meeting this criteria may be considered alternate methods subject to the approval of the Administrator.

5.5 Calibration System. The calibration system must contain the following components.

5.5.1 Tube Chamber. Chamber of glass or Teflon of sufficient dimensions to house permeation tubes.

5.5.2 Flow System. To measure air flow over permeation tubes at ± 2 percent. Each flowmeter shall be calibrated after a complete test series with a wet test meter. If the flow measuring device differs from the wet test meter by 5 percent, the completed test shall be discarded. Alternatively, the tester may elect to use the flow data that would yield the lowest flow measurement. Calibration with a wet test meter before a test is optional.

5.5.3 Constant Temperature Bath. Device capable of maintaining the permeation tubes at the calibration temperature within $\pm 0.1^\circ C$.

5.5.4 Temperature Gauge. Thermometer or equivalent to monitor bath temperature within $\pm 1^\circ C$.

6. Reagents.

6.1 Fuel. Hydrogen (H_2) prepurified grade or better.

6.2 Combustion Gas. Oxygen (O_2) or air, research purity or better.

6.3 Carrier Gas. Prepurified grade or better.

6.4 Diluent. Air containing less than 50 ppb total sulfur compounds and less than 10 ppm each of moisture and total hydrocarbons. This gas must be heated prior to mixing with the sample to avoid water condensation at the point of contact.

6.5 Calibration Gases. Permeation tubes, one each of H_2S , $MeSH$, DMS , and $DMDS$, gravimetrically calibrated and certified at some convenient operating temperature. These tubes consist of hermetically sealed FEP Teflon tubing in which a liquefied gaseous substance is enclosed. The enclosed gas permeates through the tubing wall at a constant rate. When the temperature is constant, calibration gases covering a wide range of known concentrations can be generated by varying and accurately measuring the flow rate of diluent gas passing over the tubes. These calibration gases are used to calibrate the GC/FPD system and the dilution system.

7. Pretest Procedures. The following procedures are optional but would be helpful in preventing any problem which might occur later and invalidate the entire test.

7.1 After the complete measurement system has been set up at the site and deemed to be operational, the following procedures should be completed before sampling is initiated.

7.1.1 Leak Test. Appropriate leak test procedures should be employed to verify the integrity of all components, sample lines, and connections. The following leak test procedure is suggested: For components upstream of the sample pump, attach the probe end of the sample line to a manometer or vacuum gauge, start the pump and pull greater than 50 mm (2 in.) Hg vacuum, close off the pump outlet, and then stop the pump and ascertain that there is no leak for 1 minute. For components after the pump, apply a slight positive pressure and check for leaks by applying a liquid (detergent in water, for example) at each joint. Bubbling indicates the presence of a leak.

7.1.2 System Performance. Since the complete system is calibrated following each test, the precise calibration of each component is not critical. However, these components should be verified to be operating properly. This verification can be performed by observing the response of flowmeters or of the GC output to changes in flow rates or calibration gas concentrations and ascertaining the response to be within predicted limits. In any component, or if the complete system fails to respond in a normal and predictable manner, the source of the discrepancy should be identified and corrected before proceeding.

8. Calibration. Prior to any sampling run, calibrate the system using the following procedures. (If more than one run is performed during any 24-hour period, a calibration need not be performed prior to the second and any subsequent runs. The calibration must, however, be verified as prescribed in Section 10, after the last run made within the 24-hour period.)

8.1 General Considerations. This section outlines steps to be followed for use of the GC/FPD and the dilution system. The procedure does not include detailed instructions because the operation of these systems is complex, and it requires a understanding of the individual system being used. Each system should include a written operating manual describing in detail the operating procedures associated with each component in the measurement system. In addition, the operator should be familiar with the operating principles of the components; particularly the GC/FPD. The citations in the Bibliography at the end of this method are recommended for review for this purpose.

8.2 Calibration Procedure. Insert the permeation tubes into the tube chamber. Check the bath temperature to assure agreement with the calibration temperature of the tubes within $\pm 0.1^\circ\text{C}$. Allow 24 hours for the tubes to equilibrate. Alternatively equilibration may be verified by injecting samples of calibration gas at 1-hour intervals. The permeation tubes can be assumed to have reached equilibrium when consecutive hourly samples agree within the precision limits of Section 4.1.

Vary the amount of air flowing over the tubes to produce the desired concentrations for calibrating the analytical and dilution systems. The air flow across the tubes must at all times exceed the flow requirement of the analytical systems. The concentration in parts per million generated by a tube containing a specific permeant can be calculated as follows:

$$C = K \frac{P_r}{L}$$

Equation 16-1

where:

C = Concentration of permeant produced in ppm.

P_r = Permeation rate of the tube in $\mu\text{g}/\text{min}$.

M = Molecular weight of the permeant (g/g-mole).

L = Flow rate, l/min, of air over permeant @ 20°C , 760 mm Hg.

K = Gas constant at 20°C and 760 mm Hg = 24.04 l/g mole.

8.3 Calibration of analysis system. Generate a series of three or more known concentrations spanning the linear range of the FPD (approximately 0.05 to 1.0 ppm) for each of the four major sulfur compounds. Bypassing the dilution system, inject these standards into the GC/FPD analyzers and monitor the responses. Three injections for each concentration must yield the precision described in Section 4.1. Failure to attain this precision is an indication of a problem in the calibration or analytical system. Any such problem must be identified and corrected before proceeding.

8.4 Calibration Curves. Plot the GC/FPD response in current (amperes) versus their causative concentrations in ppm on log-log coordinate graph paper for each sulfur compound. Alternatively, a least squares equation may be generated from the calibration data.

8.5 Calibration of Dilution System. Generate a known concentration of hydrogen sulfide using the permeation tube system. Adjust the flow rate of diluent air for the first dilution stage so that the desired level of dilution is approximated. Inject the diluted calibration gas into the GC/FPD system and monitor its response. Three injections for each dilution must yield the precision described in Section 4.1. Failure to attain this precision in this step is an indication of a problem in the dilution system. Any such problem must be identified and corrected before proceeding. Using the calibration data for H_2S (developed under 8.3) determine the diluted calibration gas concentration in ppm. Then calculate the dilution factor as the ratio of the calibration gas concentration before dilution to the diluted calibration gas concentration determined under this paragraph. Repeat this procedure for each stage of dilution required. Alternatively, the GC/FPD system may be calibrated by generating a series of three or more concentrations of each sulfur compound and diluting these samples before injecting them into the GC/FPD system. This data will then serve as the calibration data for the unknown samples and a separate determination of the dilution factor will not be necessary. However, the precision requirements of Section 4.1 are still applicable.

9. Sampling and Analysis Procedure.

9.1 Sampling. Insert the sampling probe into the test port making certain that no dilution air enters the stack through the port. Begin sampling and dilute the sample approximately 9:1 using the dilution system. Note that the precise dilution factor is that which is determined in paragraph 8.5. Condition the entire system with sample for a minimum of 15 minutes prior to commencing analysis.

9.2 Analysis. Aliquots of diluted sample are injected into the GC/FPD analyzer for analysis.

9.2.1 Sample Run. A sample run is composed of 16 individual analyses (injects) performed over a period of not less than 3 hours or more than 6 hours.

9.2.2 Observation for Clogging of Probe. If reductions in sample concentrations are observed during a sample run that cannot be explained by process conditions, the sampling must be interrupted to determine if the sample probe is clogged with particulate matter. If the probe is found to be clogged, the test must be stopped and the results up to that point discarded. Testing may resume after cleaning the probe or replacing it with a clean one. After each run, the sample probe must be inspected and, if necessary, dismantled and cleaned.

10. Post-Test Procedures.

10.1 Sample Line Loss. A known concentration of hydrogen sulfide at the level of the applicable standard, ± 20 percent, must be introduced into the sampling system at the opening of the probe in sufficient quantities to insure that there is an excess of sample which must be vented to the atmosphere. The sample must be transported through the entire sampling system to the measurement system in the normal manner. The resulting measured concentration should be compared to the known value to determine the sampling system loss. A sampling system loss of more than 20 percent is unacceptable. Sampling losses of 0-20 percent must be corrected for by dividing the resulting sample concentration by the fraction of recovery. The known gas sample may be generated using permeation tubes. Alternatively, cylinders of hydrogen sulfide mixed in air may be used provided they are traceable to permeation tubes. The optional pretest procedures provide a good guideline for determining if there are leaks in the sampling system.

10.2 Recalibration. After each run, or after a series of runs made within a 24-hour period, perform a partial recalibration using the procedures in Section 8. Only H_2S (or other permeant) need be used to recalibrate the GC/FPD analysis system (8.3) and the dilution system (8.5).

10.3 Determination of Calibration Drift. Compare the calibration curves obtained prior to the runs, to the calibration curves obtained under paragraph 10.1. The calibration drift should not exceed the limits set forth in paragraph 4.2. If the drift exceeds this limit, the intervening run or runs should be considered not valid. The tester, however, may instead have the option of choosing the calibration data set which would give the highest sample values.

11. Calculations.

11.1 Determine the concentrations of each reduced sulfur compound detected directly from the calibration curves. Alternatively, the concentrations may be calculated using the equation for the least square line.

11.2 Calculation of TRS. Total reduced sulfur will be determined for each analysis made by summing the concentrations of each reduced sulfur compound resolved during a given analysis.

$$\text{TRS} = \Sigma (\text{H}_2\text{S}, \text{MeSH}, \text{DMS}, 2\text{DMDS})d$$

Equation 16-2

where:

TRS = Total reduced sulfur in ppm, wet basis.

H_2S = Hydrogen sulfide, ppm.

MeSH = Methyl mercaptan, ppm.

DMS = Dimethyl sulfide, ppm.

DMDS = Dimethyl disulfide, ppm.

d = Dilution factor, dimensionless.

11.3 Average TRS. The average TRS will be determined as follows:

$$\text{Average TRS} = \frac{\sum_{i=1}^N \text{TRS}_i}{N(1-B_{wo})}$$

Average TRS=Average total reduced sulfur in ppm, dry basis.

TRS_i=Total reduced sulfur in ppm as determined by Equation 16-2.

N=Number of samples.

B_{wo}=Fraction of volume of water vapor in the gas stream as determined by method 4—Determination of Moisture in Stack Gases (36 FR 24837).

11.4 Average concentration of individual reduced sulfur compounds.

$$C = \frac{\sum_{i=1}^N S_i}{N}$$

Equation 16-3

where:

S_i=Concentration of any reduced sulfur compound from the *i*th sample injection, ppm.

C=Average concentration of any one of the reduced sulfur compounds for the entire run, ppm.

N=Number of injections in any run period.

12. Example System. Described below is a system utilized by EPA in gathering NSPS data. This system does not now reflect all the latest developments in equipment and column technology, but it does represent one system that has been demonstrated to work.

12.1 Apparatus.

12.1.1 Sampling System.

12.1.1.1 Probe. Figure 16-1 illustrates the probe used in lime kilns and other sources where significant amounts of particulate matter are present. The probe is designed with the deflector shield placed between the sample and the gas inlet holes and the glass wool plugs to reduce clogging of the filter and possible adsorption of sample gas. The exposed portion of the probe between the sampling port and the sample line is heated with heating tape.

12.1.1.2 Sample Line. 1/8 inch inside diameter Teflon tubing, heated to 120° C. This temperature is controlled by a thermostatic heater.

12.1.1.3 Sample Pump. Leakless Teflon coated diaphragm type or equivalent. The pump head is heated to 120° C by enclosing it in the sample dilution box (12.2.4 below).

12.1.2 Dilution System. A schematic diagram of the dynamic dilution system is given in Figure 16-2. The dilution system is constructed such that all sample contacts are made of inert materials. The dilution system which is heated to 120° C must be capable of a minimum of 9:1 dilution of sample. Equipment used in the dilution system is listed below:

12.1.2.1 Dilution Pump. Model A-150 Kohmyr Teflon positive displacement type, nonadjustable 150 cc/min. ±2.0 percent, or equivalent, per dilution stage. A 9:1 dilution of sample is accomplished by com-

binning 150 cc of sample with 1,350 cc of clean dry air as shown in Figure 16-2.

12.1.2.2 Valves. Three-way Teflon solenoid or manual type.

12.1.2.3 Tubing. Teflon tubing and fittings are used throughout from the sample probe to the GC/FPD to present an inert surface for sample gas.

12.1.2.4 Box. Insulated box, heated and maintained at 120° C, of sufficient dimensions to house dilution apparatus.

12.1.2.5 Flowmeters. Rotameters or equivalent to measure flow from 0 to 1500 ml/min ±1 percent per dilution stage.

12.1.3 Gas Chromatograph Columns. Two types of columns are used for separation of low and high molecular weight sulfur compounds:

12.1.3.1 Low Molecular Weight Sulfur Compounds Column (GC/FPD-1).

12.1.3.1.1 Separation Column. 11 m by 2.16 mm (36 ft by 0.085 in) inside diameter Teflon tubing packed with 30/60 mesh Teflon coated with 5 percent polyphenyl ether and 0.05 percent orthophosphoric acid, or equivalent (see Figure 16-3).

12.1.3.1.2 Stripper or Precolumn. 0.6 m by 2.16 mm (2 ft by 0.085 in) inside diameter Teflon tubing packed as in 5.3.1.

12.1.3.1.3 Sample Valve. Teflon 10-port gas sampling valve, equipped with a 10 ml sample loop, actuated by compressed air (Figure 16-3).

12.1.3.1.4 Oven. For containing sample valve, stripper column and separation column. The oven should be capable of maintaining an elevated temperature ranging from ambient to 100° C, constant within ±1° C.

12.1.3.1.5 Temperature Monitor. Thermocouple pyrometer to measure column oven, detector, and exhaust temperature ±1° C.

12.1.3.1.6 Flow System. Gas metering system to measure sample flow, hydrogen flow, and oxygen flow (and nitrogen carrier gas flow).

12.1.3.1.7 Detector. Flame photometric detector.

12.1.3.1.8 Electrometer. Capable of full scale amplification of linear ranges of 10⁻⁶ to 10⁻⁴ amperes full scale.

12.1.3.1.9 Power Supply. Capable of delivering up to 750 volts.

12.1.3.1.10 Recorder. Compatible with the output voltage range of the electrometer.

12.1.3.2 High Molecular Weight Compounds Column (GC/FPD-11).

12.1.3.2.1 Separation Column. 3.05 m by 2.16 mm (10 ft by 0.085 in) inside diameter Teflon tubing packed with 30/60 mesh Teflon coated with 10 percent Triton X-305, or equivalent.

12.1.3.2.2 Sample Valve. Teflon 6-port gas sampling valve equipped with a 10 ml sample loop, actuated by compressed air (Figure 16-3).

12.1.3.2.3 Other Components. All components same as in 12.1.3.1.4 to 12.1.3.1.10.

12.1.4 Calibration. Permeation tube system (figure 16-4).

12.1.4.1 Tube Chamber. Glass chamber of sufficient dimensions to house permeation tubes.

12.1.4.2 Mass Flowmeters. Two mass flowmeters in the range 0-3 l/min. and 0-10 l/min. to measure air flow over permeation tubes at ±2 percent. These flowmeters shall be cross-calibrated at the beginning of each test. Using a convenient flow rate in the measuring range of both flowmeters, set and monitor the flow rate of gas over the permeation tubes. Injection of calibration

gas generated at this flow rate as measured by one flowmeter followed by injection of calibration gas at the same flow rate as measured by the other flowmeter should agree within the specified precision limits. If they do not, then there is a problem with the mass flow measurement. Each mass flowmeter shall be calibrated prior to the first test with a wet test meter and thereafter, at least once each year.

12.1.4.3 Constant Temperature Bath. Capable of maintaining permeation tubes at certification temperature of 30° C. within ±0.1° C.

12.2 Reagents

12.2.1 Fuel. Hydrogen (H₂) prepurified grade or better.

12.2.2 Combustion Gas. Oxygen (O₂) research purity or better.

12.2.3 Carrier Gas. Nitrogen (N₂) prepurified grade or better.

12.2.4 Diluent. Air containing less than 50 ppb total sulfur compounds and less than 10 ppm each of moisture and total hydrocarbons, and filtered using MSA filters 46727 and 79030, or equivalent. Removal of sulfur compounds can be verified by injecting dilution air only, described in Section 8.3.

12.2.5 Compressed Air. 60 psig for GC valve actuation.

12.2.6 Calibrated Gases. Permeation tubes gravimetrically calibrated and certified at 30.0° C.

12.3 Operating Parameters.

12.3.1 Low-Molecular Weight Sulfur Compounds. The operating parameters for the GC/FPD system used for low molecular weight compounds are as follows: nitrogen carrier gas flow rate of 50 cc/min, exhaust temperature of 110° C, detector temperature of 105° C, oven temperature of 40° C, hydrogen flow rate of 80 cc/min, oxygen flow rate of 20 cc/min, and sample flow rate between 20 and 80 cc/min.

12.3.2 High-Molecular Weight Sulfur Compounds. The operating parameters for the GC/FPD system for high molecular weight compounds are the same as in 12.3.1 except: oven temperature of 70° C, and nitrogen carrier gas flow of 100 cc/min.

12.4 Analysis Procedure.

12.4.1 Analysis. Aliquots of diluted sample are injected simultaneously into both GC/FPD analyzers for analysis. GC/FPD-I is used to measure the low-molecular weight reduced sulfur compounds. The low molecular weight compounds include hydrogen sulfide, methyl mercaptan, and dimethyl sulfide. GC/FPD-II is used to resolve the high-molecular weight compound. The high-molecular weight compound is dimethyl disulfide.

12.4.1.1 Analysis of Low-Molecular Weight Sulfur Compounds. The sample valve is actuated for 3 minutes in which time an aliquot of diluted sample is injected into the stripper column and analytical column. The valve is then deactivated for approximately 12 minutes in which time, the analytical column continues to be flushed, the stripper column is backflushed, and the sample loop is refilled. Monitor the responses. The elution time for each compound will be determined during calibration.

12.4.1.2 Analysis of High-Molecular Weight Sulfur Compounds. The procedure is essentially the same as above except that no stripper column is needed.

13. Bibliography.

13.1 O'Keefe, A. E. and G. C. Ortman. "Primary Standards for Trace Gas Analy-

sis." *Analytical Chemical Journal*, 38,760 (1966).

13.2 Stevens, R. K., A. E. O'Keeffe, and G. C. Ortman. "Absolute Calibration of a Flame Photometric Detector to Volatile Sulfur Compounds at Sub-Part-Per-Million Levels." *Environmental Science and Technology*, 3:7 (July, 1969).

13.3 Mulick, J. D., R. K. Stevens, and R. Baumgardner. "An Analytical System Designed to Measure Multiple Malodorous

Compounds Related to Kraft Mill Activities." Presented at the 12th Conference on Methods in Air Pollution and Industrial Hygiene Studies, University of Southern California, Los Angeles, CA. April 6-8, 1971.

13.4 Devonald, R. H., R. S. Serenius, and A. D. McIntyre. "Evaluation of the Flame Photometric Detector for Analysis of Sulfur Compounds." *Pulp and Paper Magazine of Canada*, 73,3 (March, 1972).

13.5 Grimley, K. W., W. S. Smith, and R. M. Martin. "The Use of a Dynamic Dilution System in the Conditioning of Stack Gases for Automated Analysis by a Mobile Sampling Van." Presented at the 63rd Annual APCA Meeting in St. Louis, Mo. June 14-19, 1970.

13.6 General Reference. *Standard Methods of Chemical Analysis Volume III A and B Instrumental Methods*. Sixth Edition. Van Nostrand Reinhold Co.

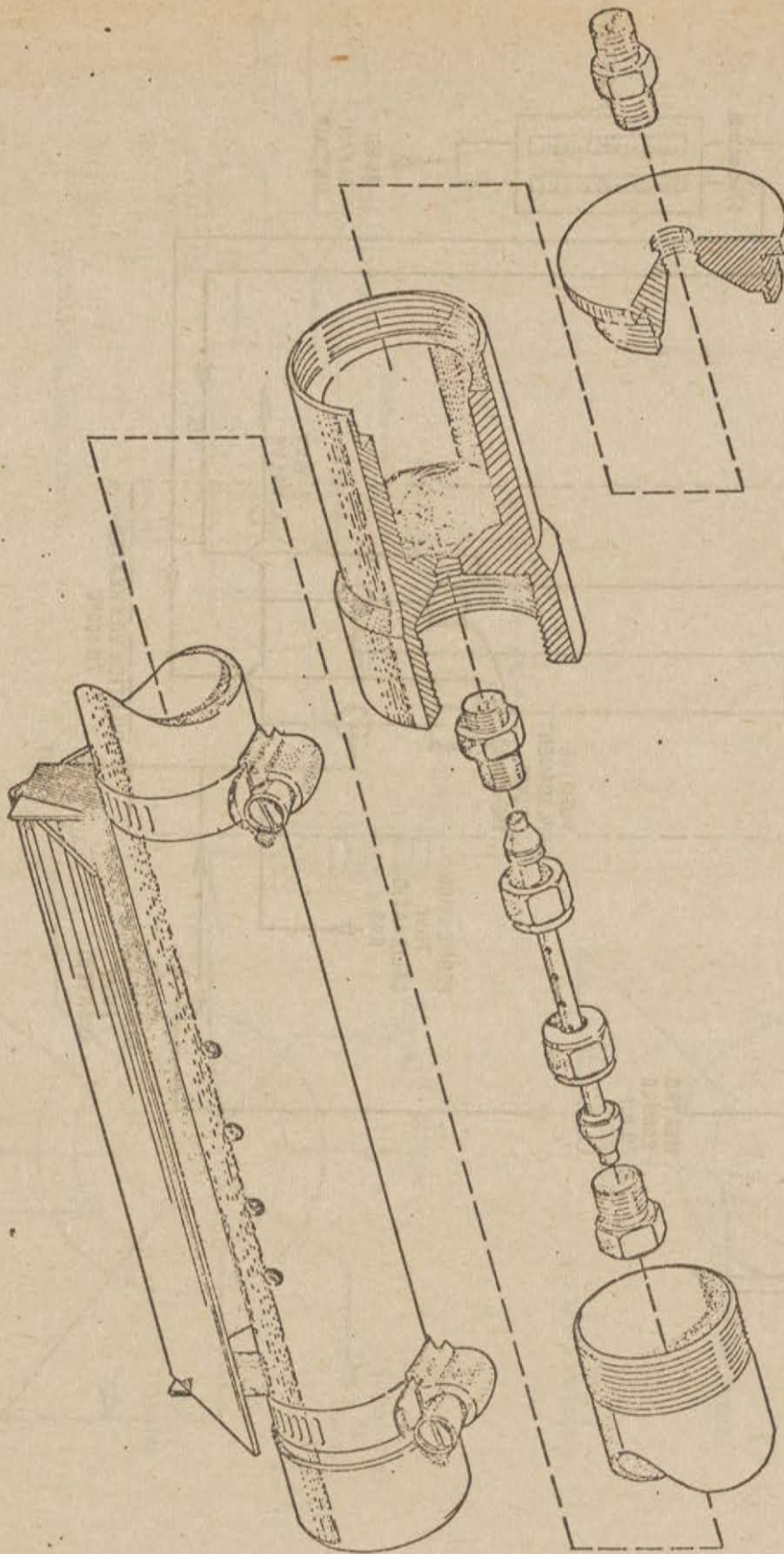


Figure 16-1. Probe used for sample gas containing high particulate loadings.

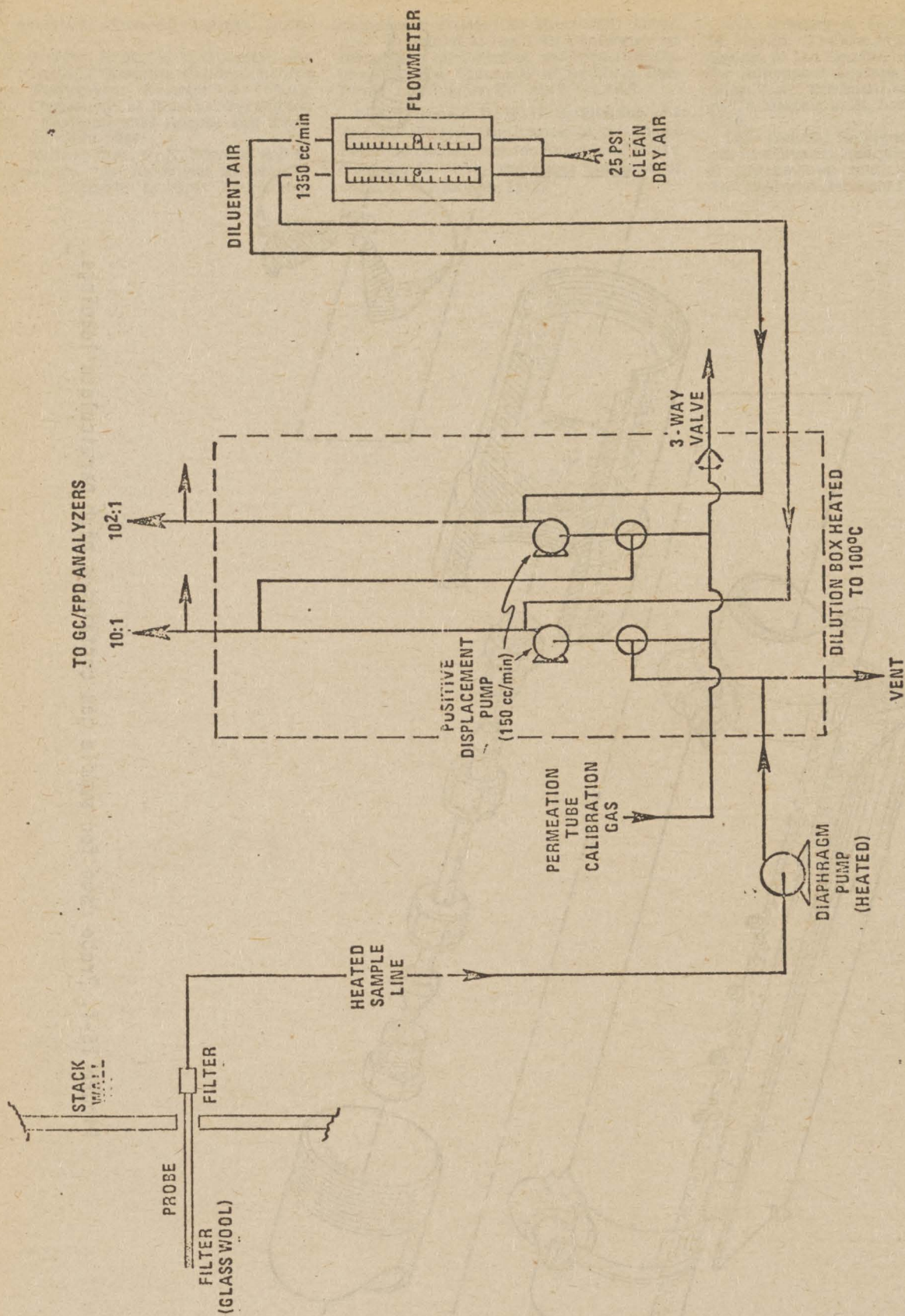


Figure 16-2. Sampling and dilution apparatus.

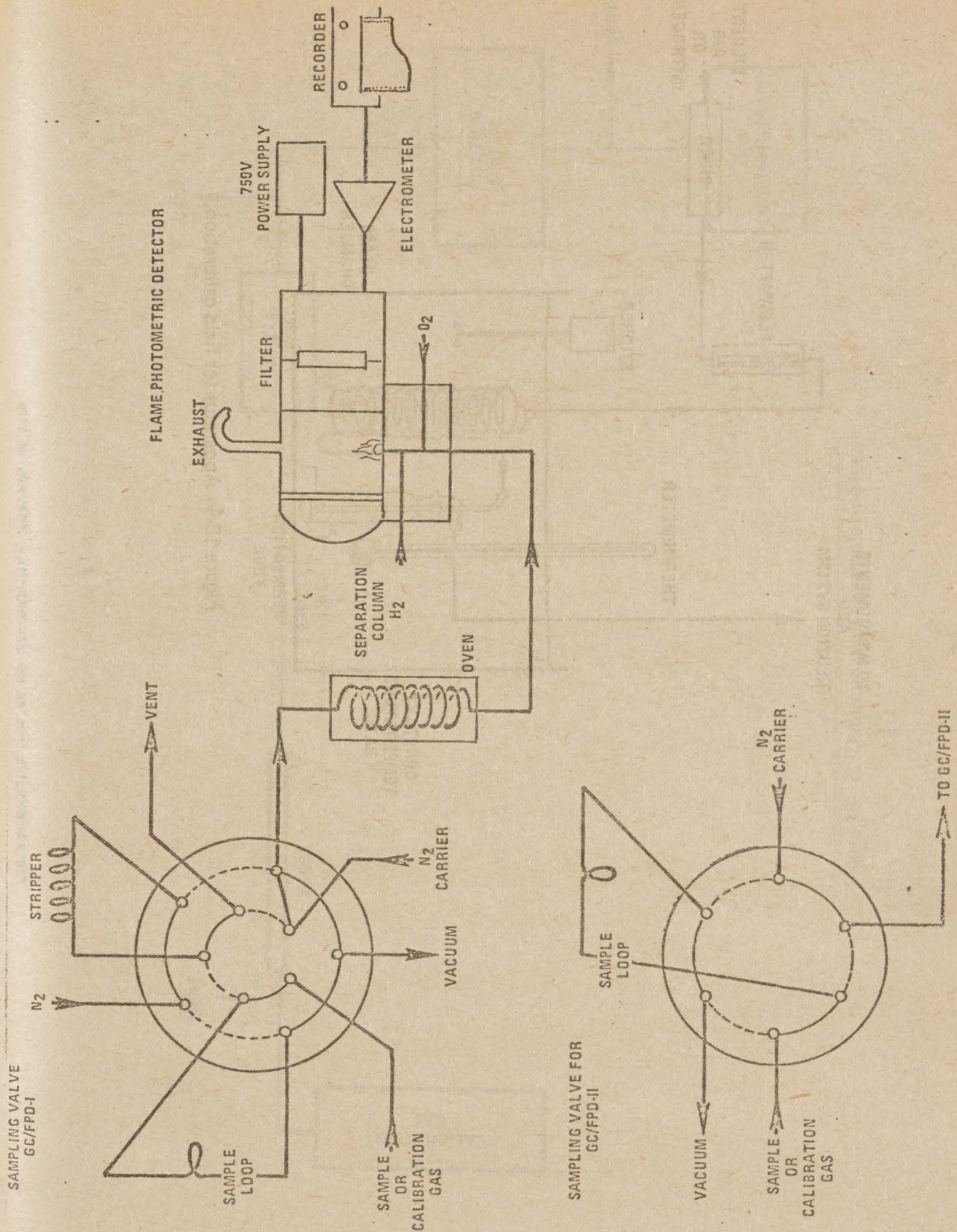


Figure 16-3. Gas chromatographic-flame photometric analyzers.

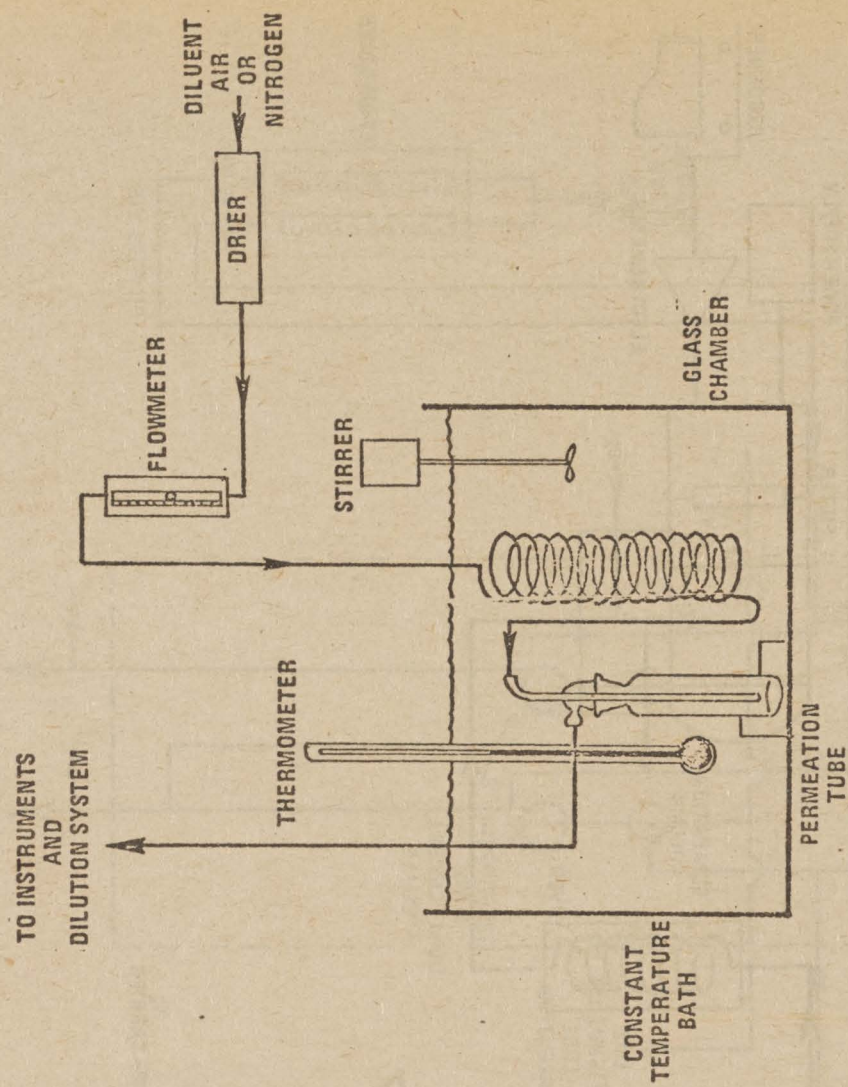


Figure 16-4. Apparatus for field calibration.

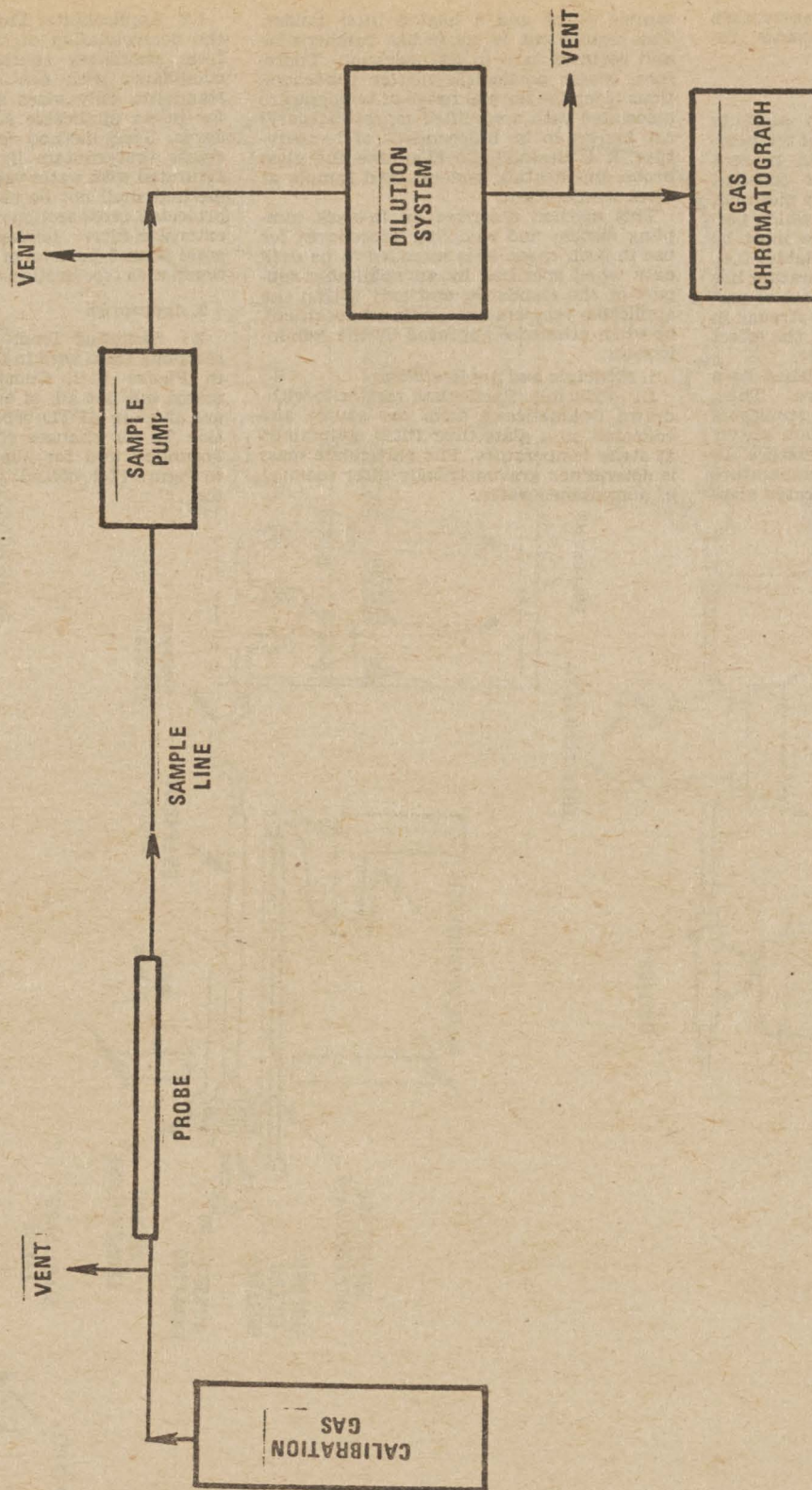


Figure 16- 5. Determination of sample line loss.

METHOD 17. DETERMINATION OF PARTICULATE EMISSIONS FROM STATIONARY SOURCES (IN-STACK FILTRATION METHOD)

Introduction

Particulate matter is not an absolute quantity; rather, it is a function of temperature and pressure. Therefore, to prevent variability in particulate matter emission regulations and/or associated test methods, the temperature and pressure at which particulate matter is to be measured must be carefully defined. Of the two variables (i.e., temperature and pressure), temperature has the greater effect upon the amount of particulate matter in an effluent gas stream; in most stationary source categories, the effect of pressure appears to be negligible.

In method 5, 250° F is established as a nominal reference temperature. Thus, where Method 5 is specified in an applicable subpart of the standards, particulate matter is defined with respect to temperature. In order to maintain a collection temperature of 250° F, Method 5 employs a heated glass

sample probe and a heated filter holder. This equipment is somewhat cumbersome and requires care in its operation. Therefore, where particulate matter concentrations (over the normal range of temperature associated with a specified source category) are known to be independent of temperature, it is desirable to eliminate the glass probe and heating systems, and sample at stack temperature.

This method describes an in-stack sampling system and sampling procedures for use in such cases. It is intended to be used only when specified by an applicable subpart of the standards, and only within the applicable temperature limits (if specified), or when otherwise approved by the Administrator.

1. Principle and Applicability.

1.1 Principle. Particulate matter is withdrawn isokinetically from the source and collected on a glass fiber filter maintained at stack temperature. The particulate mass is determined gravimetrically after removal of uncombined water.

1.2 Applicability. This method applies to the determination of particulate emissions from stationary sources for determining compliance with new source performance standards, only when specifically provided for in an applicable subpart of the standards. This method is not applicable to stacks that contain liquid droplets or are saturated with water vapor. In addition, this method shall not be used as written if the projected cross-sectional area of the probe extension-filter holder assembly covers more than 5 percent of the stack cross-sectional area (see Section 4.1.2).

2. Apparatus.

2.1 Sampling Train. A schematic of the sampling train used in this method is shown in Figure 17-1. Construction details for many, but not all, of the train components are given in APTD-0581 (Citation 2 in Section 7); for changes from the APTD-0581 document and for allowable modifications to Figure 17-1, consult with the Administrator.

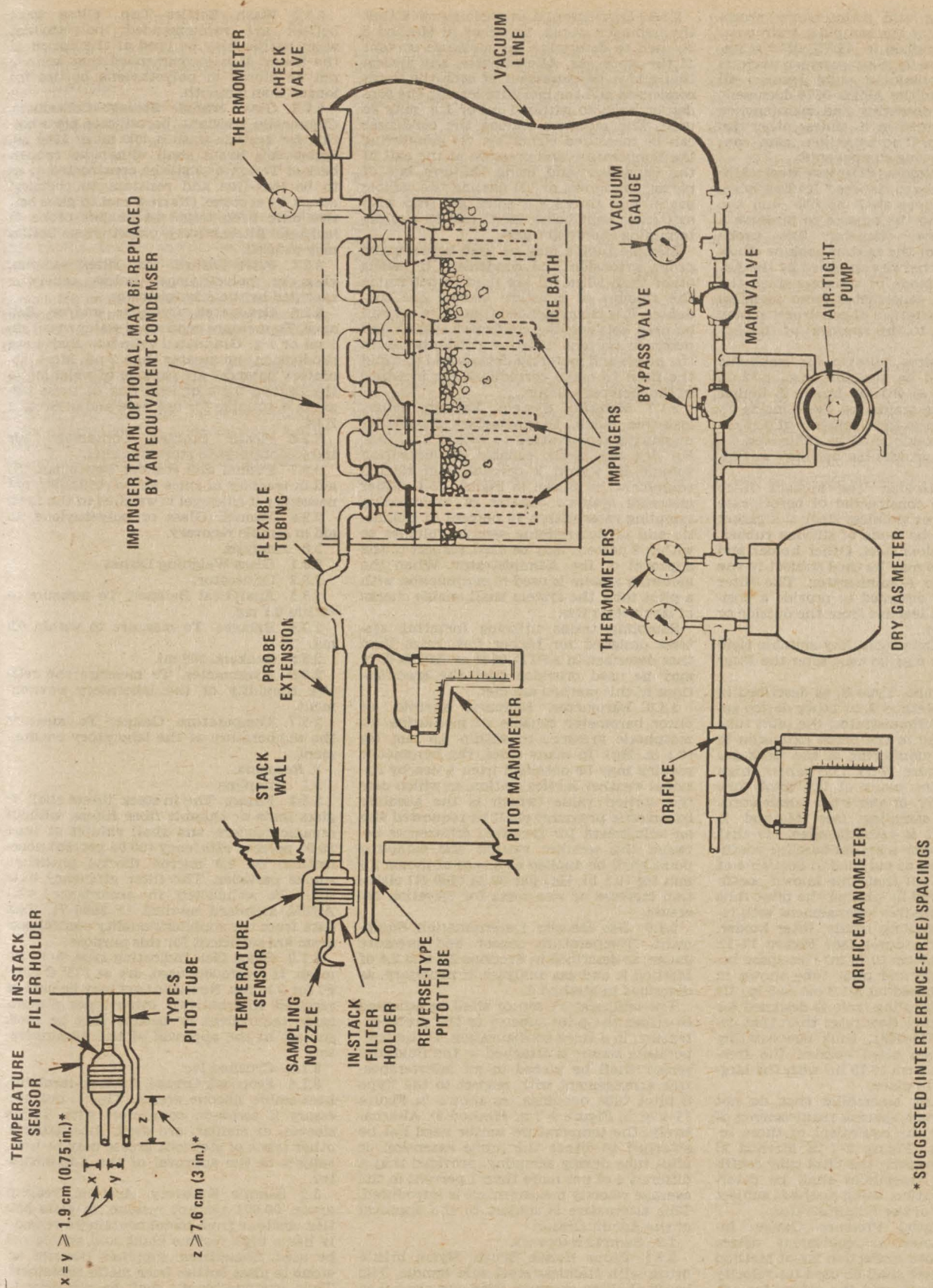


Figure 17-1. Particulate-Sampling Train, Equipped with In-Stack Filter.

The operating and maintenance procedures for many of the sampling train components are described in APTD-0576 (Citation 3 in Section 7). Since correct usage is important in obtaining valid results, all users should read the APTD-0576 document and adopt the operating and maintenance procedures outlined in it, unless otherwise specified herein. The sampling train consists of the following components:

2.1.1 Probe Nozzle. Stainless steel (316) or glass, with sharp, tapered leading edge. The angle of taper shall be 030° and the taper shall be on the outside to preserve a constant internal diameter. The probe nozzle shall be of the button-hook or elbow design, unless otherwise specified by the Administrator. If made of stainless steel, the nozzle shall be constructed from seamless tubing. Other materials of construction may be used subject to the approval of the Administrator.

A range of sizes suitable for isokinetic sampling should be available, e.g., 0.32 to 1.27 cm ($\frac{1}{8}$ to $\frac{1}{2}$ in.)—or larger if higher volume sampling trains are used—inside diameter (ID) nozzles in increments of 0.16 cm ($\frac{1}{16}$ in.). Each nozzle shall be calibrated according to the procedures outlined in Section 5.1.

2.1.2 Filter Holder. The in-stack filter holder shall be constructed of borosilicate or quartz glass, or stainless steel; if a gasket is used, it shall be made of silicone rubber, Teflon, or stainless steel. Other holder and gasket materials may be used subject to the approval of the Administrator. The filter holder shall be designed to provide a positive seal against leakage from the outside or around the filter.

2.1.3 Probe Extension. Any suitable rigid probe extension may be used after the filter holder.

2.1.4 Pitot Tube. Type S, as described in Section 2.1 of Method 2, or other device approved by the Administrator; the pitot tube shall be attached to the probe extension to allow constant monitoring of the stack gas velocity (see Figure 17-1). The impact (high pressure) opening plane of the pitot tube shall be even with or above the nozzle entry plane during sampling (see Method 2, Figure 2-6b). It is recommended: (1) that the pitot tube have a known baseline coefficient, determined as outlined in Section 4 of Method 2; and (2) that this known coefficient be preserved by placing the pitot tube in an interference-free arrangement with respect to the sampling nozzle, filter holder, and temperature sensor (see Figure 17-1). Note that the 1.9 cm (0.75 in.) free-space between the nozzle and pitot tube shown in Figure 17-1, is based on a 1.3 cm (0.5 in.) ID nozzle. If the sampling train is designed for sampling at higher flow rates than that described in APTD-0581, thus necessitating the use of larger sized nozzles, the free-space shall be 1.9 cm (0.75 in.) with the largest sized nozzle in place.

Source-sampling assemblies that do not meet the minimum spacing requirements of Figure 17-1 (or the equivalent of these requirements, e.g., Figure 2-7 of Method 2) may be used; however, the pitot tube coefficients of such assemblies shall be determined by calibration, using methods subject to the approval of the Administrator.

2.1.5 Differential Pressure Gauge. Inclined manometer or equivalent device (two), as described in Section 2.2 of Method 2. One manometer shall be used for velocity head (Δp) readings, and the other, for orifice differential pressure readings.

2.1.6 Condenser. It is recommended that the impinger system described in Method 5 be used to determine the moisture content of the stack gas. Alternatively, any system that allows measurement of both the water condensed and the moisture leaving the condenser, each to within 1 ml or 1 g, may be used. The moisture leaving the condenser can be measured either by: (1) monitoring the temperature and pressure at the exit of the condenser and using Dalton's law of partial pressures; or (2) passing the sample gas stream through a silica gel trap with exit gases kept below 20° C (68° F) and determining the weight gain.

Flexible tubing may be used between the probe extension and condenser. If means other than silica gel are used to determine the amount of moisture leaving the condenser, it is recommended that silica gel still be used between the condenser system and pump to prevent moisture condensation in the pump and metering devices and to avoid the need to make corrections for moisture in the metered volume.

2.1.7 Metering System. Vacuum gauge, leak-free pump, thermometers capable of measuring temperature to within 3° C (5.4° F), dry gas meter capable of measuring volume to within 2 percent, and related equipment, as shown in Figure 17-1. Other metering systems capable of maintaining sampling rates within 10 percent of isokinetic and of determining sample volumes to within 2 percent may be used, subject to the approval of the Administrator. When the metering system is used in conjunction with a pitot tube, the system shall enable checks of isokinetic rates.

Sampling trains utilizing metering systems designed for higher flow rates than that described in APTD-0581 or APTD-0576 may be used provided that the specifications of this method are met.

2.1.8 Barometer. Mercury, aneroid, or other barometer capable of measuring atmospheric pressure to within 2.5 mm Hg (0.1 in. Hg). In many cases, the barometric reading may be obtained from a nearby national weather service station, in which case the station value (which is the absolute barometric pressure) shall be requested and an adjustment for elevation differences between the weather station and sampling point shall be applied at a rate of minus 2.5 mm Hg (0.1 in. Hg) per 30 m (100 ft) elevation increase or vice versa for elevation decrease.

2.1.9 Gas Density Determination Equipment. Temperature sensor and pressure gauge, as described in Sections 2.3 and 2.4 of Method 2, and gas analyzer, if necessary, as described in Method 3.

The temperature sensor shall be attached to either the pitot tube or to the probe extension, in a fixed configuration. If the temperature sensor is attached in the field; the sensor shall be placed in an interference-free arrangement with respect to the Type S pitot tube openings (as shown in Figure 17-1 or in Figure 2-7 of Method 2). Alternatively, the temperature sensor need not be attached to either the probe extension or pitot tube during sampling, provided that a difference of not more than 1 percent in the average velocity measurement is introduced. This alternative is subject to the approval of the Administrator.

2.2 Sample Recovery.

2.2.1 Probe Nozzle Brush. Nylon bristle brush with stainless steel wire handle. The brush shall be properly sized and shaped to brush out the probe nozzle.

2.2.2 Wash Bottles—Two. Glass wash bottles are recommended; polyethylene wash bottles may be used at the option of the tester. It is recommended that acetone not be stored in polyethylene bottles for longer than a month.

2.2.3 Glass Sample Storage Containers. Chemically resistant, borosilicate glass bottles, for acetone washes, 500 ml or 1000 ml. Screw cap liners shall either be rubber-backed Teflon or shall be constructed so as to be leak-free and resistant to chemical attack by acetone. (Narrow mouth glass bottles have been found to be less prone to leakage.) Alternatively, polyethylene bottles may be used.

2.2.4 Petri Dishes. For filter samples; glass or polyethylene, unless otherwise specified by the Administrator.

2.2.5 Graduated Cylinder and/or Balance. To measure condensed water to within 1 ml or 1 g. Graduated cylinders shall have subdivisions no greater than 2 ml. Most laboratory balances are capable of weighing to the nearest 0.5 g or less. Any of these balances is suitable for use here and in Section 2.3.4.

2.2.6 Plastic Storage Containers. Air tight containers to store silica gel.

2.2.7 Funnel and Rubber Policeman. To aid in transfer of silica gel to container; not necessary if silica gel is weighed in the field.

2.2.8 Funnel. Glass or polyethylene, to aid in sample recovery.

2.3 Analysis.

2.3.1 Glass Weighing Dishes.

2.3.2 Desiccator.

2.3.3 Analytical Balance. To measure to within 0.1 mg.

2.3.4 Balance. To measure to within 0.5 mg.

2.3.5 Beakers. 250 ml.

2.3.6 Hygrometer. To measure the relative humidity of the laboratory environment.

2.3.7 Temperature Gauge. To measure the temperature of the laboratory environment.

3. Reagents.

3.1 Sampling.

3.1.1 Filters. The in-stack filters shall be glass mats or thimble fiber filters, without organic binders, and shall exhibit at least 99.95 percent efficiency (00.05 percent penetration) on 0.3 micron dioctyl phthalate smoke particles. The filter efficiency tests shall be conducted in accordance with ASTM standard method D 2986-71. Test data from the supplier's quality control program are sufficient for this purpose.

3.1.2 Silica Gel. Indicating type, 6- to 16-mesh. If previously used, dry at 175° C (350° F) for 2 hours. New silica gel may be used as received. Alternatively, other types of desiccants (equivalent or better) may be used, subject to the approval of the Administrator.

3.1.3 Crushed Ice.

3.1.4 Stopcock Grease. Acetone-insoluble, heat-stable silicone grease. This is not necessary if screw-on connectors with Teflon sleeves, or similar, are used. Alternatively, other types of stopcock grease may be used, subject to the approval of the Administrator.

3.2 Sample Recovery. Acetone, reagent grade, 00.001 percent residue, in glass bottles. Acetone from metal containers generally has a high residue blank and should not be used. Sometimes, suppliers transfer acetone to glass bottles from metal containers. Thus, acetone blanks shall be run prior to field use and only acetone with low blank

values (00.001 percent) shall be used. In no case shall a blank value of greater than 0.001 percent of the weight of acetone used be subtracted from the sample weight.

3.3 Analysis.

3.3.1 Acetone. Same as 3.2.

3.3.2 Desiccant. Anhydrous calcium sulfate, indicating type. Alternatively, other types of desiccants may be used, subject to the approval of the Administrator.

4. Procedure.

4.1 Sampling. The complexity of this method is such that, in order to obtain reliable results, testers should be trained and experienced with the test procedures.

4.1.1 Pretest Preparation. All components shall be maintained and calibrated according to the procedure described in APTD-0576, unless otherwise specified herein.

Weigh several 200 to 300 g portions of silica gel in air-tight containers to the nearest 0.5 g. Record the total weight of the silica gel plus container, on each container. As an alternative, the silica gel need not be preweighed, but may be weighed directly in its impinger or sampling holder just prior to train assembly.

Check filters visually against light for irregularities and flaws or pinhole leaks. Label filters of the proper size on the back side near the edge using numbering machine ink. As an alternative, label the shipping containers (glass or plastic petri dishes) and keep the filters in these containers at all times except during sampling and weighing.

Desiccate the filters at $20 \pm 5.6^\circ \text{C}$ ($68 \pm 10^\circ \text{F}$) and ambient pressure for at least 24 hours and weigh at intervals of at least 6 hours to a constant weight, i.e., 00.5 mg change from previous weighing; record results to the nearest 0.1 mg. During each weighing the filter must not be exposed to the laboratory atmosphere for a period greater than 2 minutes and a relative humidity above 50 percent. Alternatively (unless otherwise specified by the Administrator), the filters may be oven dried at 105°C (220°F) for 2 to 3 hours, desiccated for 2 hours, and weighed. Procedures other than those described, which account for relative humidity effects, may be used, subject to the approval of the Administrator.

4.1.2 Preliminary Determinations. Select the sampling site and the minimum number of sampling points according to Method 1 or as specified by the Administrator. Make a

projected-area model of the probe extension-filter holder assembly, with the pitot tube face openings positioned along the centerline of the stack, as shown in Figure 17-2. Calculate the estimated cross-section blockage, as shown in Figure 17-2. If the blockage exceeds 5 percent of the duct cross sectional area, the tester has the following options: (1) a suitable out-of-stack filtration method may be used instead of in-stack filtration; or (2) a special in-stack arrangement, in which the sampling and velocity measurement sites are separate, may be used; for details concerning this approach, consult with the Administrator (see also Citation 10 in Section 7). Determine the stack pressure, temperature, and the range of velocity heads using Method 2; it is recommended that a leak-check of the pitot lines (see Method 2, Section 3.1) be performed. Determine the moisture content using Approximation Method 4 or its alternatives for the purpose of making isokinetic sampling rate settings. Determine the stack gas dry molecular weight, as described in Method 2, Section 3.6; if integrated Method 3 sampling is used for molecular weight determination, the integrated bag sample shall be taken simultaneously with, and for the same total length of time as, the particular sample run.

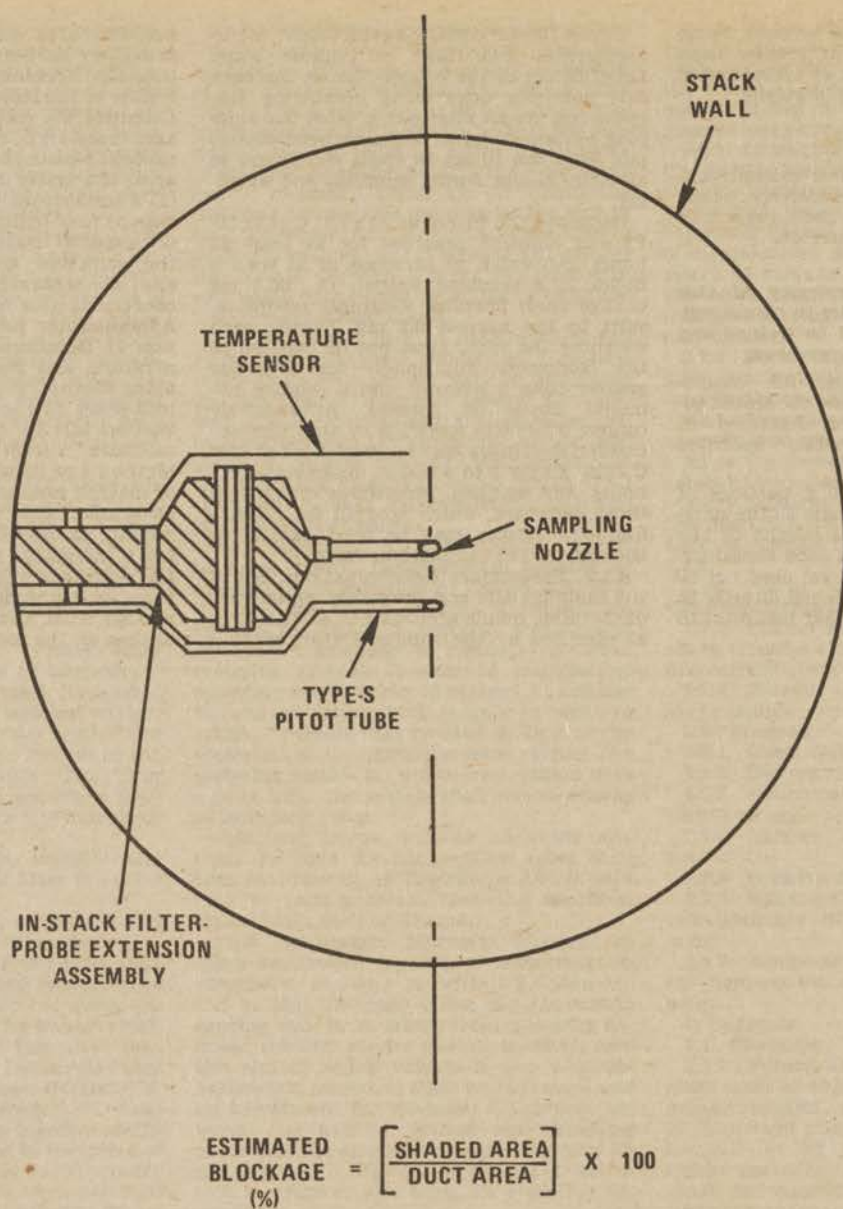


Figure 17-2. Projected-area model of cross-section blockage (approximate average for a sample traverse) caused by an in-stack filter holder-probe extension assembly.

Select a nozzle size based on the range of velocity heads, such that it is not necessary to change the nozzle size in order to maintain isokinetic sampling rates. During the run, do not change the nozzle size. Ensure that the proper differential pressure gauge is chosen for the range of velocity heads encountered (see Section 2.2 of Method 2).

Select a probe extension length such that all traverse points can be sampled. For large stacks, consider sampling from opposite sides of the stack to reduce the length of probes.

Select a total sampling time greater than or equal to the minimum total sampling time specified in the test procedures for the specific industry such that (1) the sampling time per point is not less than 2 minutes (or some greater time interval if specified by the Administrator), and (2) the sample volume taken (corrected to standard conditions) will exceed the required minimum total gas sample volume. The latter is based on an approximate average sampling rate.

It is recommended that the number of minutes sampled at each point be an integer or an integer plus one-half minute, in order to avoid timekeeping errors.

In some circumstances, e.g., batch cycles, it may be necessary to sample for shorter times at the traverse points and to obtain smaller gas sample volumes. In these cases, the Administrator's approval must first be obtained.

4.1.3 Preparation of Collection Train. During preparation and assembly of the sampling train, keep all openings where contamination can occur covered until just prior to assembly or until sampling is about to begin.

If impingers are used to condense stack gas moisture, prepare them as follows: place 100 ml of water in each of the first two impingers, leave the third impinger empty, and transfer approximately 200 to 300 g of preweighed silica gel from its container to the fourth impinger. More silica gel may be used, but care should be taken to ensure that it is not entrained and carried out from the impinger during sampling. Place the container in a clean place for later use in the sample recovery. Alternatively, the weight of the silica gel plus impinger may be determined to the nearest 0.5 g and recorded.

If some means other than impingers is used to condense moisture, prepare the condenser (and, if appropriate, silica gel for condenser outlet) for use.

Using a tweezer or clean disposable surgical gloves, place a labeled (identified) and

weighed filter in the filter holder. Be sure that the filter is properly centered and the gasket properly placed so as not to allow the sample gas stream to circumvent the filter. Check filter for tears after assembly is completed. Mark the probe extension with heat resistant tape or by some other method to denote the proper distance into the stack or duct for each sampling point.

Assemble the train as in Figure 17-1, using a very light coat of silicone grease on all ground glass joints and greasing only the outer portion (see APTD-0576) to avoid possibility of contamination by the silicone grease. Place crushed ice around the impingers.

4.1.4 Leak Check Procedures.

4.1.4.1 Pretest Leak-Check. A pretest leak-check is recommended, but not required. If the tester opts to conduct the pretest leak-check, the following procedure shall be used.

After the sampling train has been assembled, plug the inlet to the probe nozzle with a material that will be able to withstand the stack temperature. Insert the filter holder into the stack and wait approximately 5 minutes (or longer, if necessary) to allow the system to come to equilibrium with the temperature of the stack gas stream. Turn on the pump and draw a vacuum of at least 380 mm Hg (15 in. Hg); note that a lower vacuum may be used, provided that it is not exceeded during the test. Determine the leakage rate. A leakage rate in excess of 4 percent of the average sampling rate or 0.00057 m³/min. (0.02 cfm), whichever is less, is unacceptable.

The following leak-check instructions for the sampling train described in APTD-0576 and APTD-0581 may be helpful. Start the pump with by-pass valve fully open and coarse adjust valve completely closed. Partially open the coarse adjust valve and slowly close the by-pass valve until the desired vacuum is reached. Do not reverse direction of by-pass valve. If the desired vacuum is exceeded, either leak-check at this higher vacuum or end the leak-check as shown below and start over.

When the leak-check is completed, first slowly remove the plug from the inlet to the probe nozzle and immediately turn off the vacuum pump. This prevents water from being forced backward and keeps silica gel from being entrained backward.

4.1.4.2 Leak-Checks During Sample Run. If, during the sampling run, a component (e.g., filter assembly or impinger) change becomes necessary, a leak-check shall be conducted immediately before the change is

made. The leak-check shall be done according to the procedure outlined in Section 4.1.4.1 above, except that it shall be done at a vacuum equal to or greater than the maximum value recorded up to that point in the test. If the leakage rate is found to be no greater than 0.00057 m³/min (0.02 cfm) or 4 percent of the average sampling rate (whichever is less), the results are acceptable, and no correction will need to be applied to the total volume of dry gas metered; if, however, a higher leakage rate is obtained, the tester shall either record the leakage rate and plan to correct the sample volume as shown in Section 6.3 of this method, or shall void the sampling run.

Immediately after component changes, leak-checks are optional; if such leak-checks are done, the procedure outlined in Section 4.1.4.1 above shall be used.

4.1.4.3 Post-Test Leak-Check. A leak-check is mandatory at the conclusion of each sampling run. The leak-check shall be done in accordance with the procedures outlined in Section 4.1.4.1, except that it shall be conducted at a vacuum equal to or greater than the maximum value reached during the sampling run. If the leakage rate is found to be no greater than 0.00057 m³/min (0.02 cfm) or 4 percent of the average sampling rate (whichever is less), the results are acceptable, and no correction need be applied to the total volume of dry gas metered. If, however, a higher leakage rate is obtained, the tester shall either record the leakage rate and correct the sample volume as shown in Section 6.3 of this method, or shall void the sampling run.

4.1.5 Particulate Train Operation. During the sampling run, maintain a sampling rate such that sampling is within 10 percent of true isokinetic, unless otherwise specified by the Administrator.

For each run, record the data required on the example data sheet shown in Figure 17-3. Be sure to record the initial dry gas meter reading. Record the dry gas meter readings at the beginning and end of each sampling time increment, when changes in flow rates are made, before and after each leak check, and when sampling is halted. Take other readings required by Figure 17-3 at least once at each sample point during each time increment and additional readings when significant changes (20 percent variation in velocity head readings) necessitate additional adjustments in flow rate. Level and zero the manometer. Because the manometer level and zero may drift due to vibrations and temperature changes, make periodic checks during the traverse.

Clean the portholes prior to the test run to minimize the chance of sampling the deposited material. To begin sampling, remove the nozzle cap and verify that the pitot tube and probe extension are properly positioned. Position the nozzle at the first traverse point with the tip pointing directly into the gas stream. Immediately start the pump and adjust the flow to isokinetic conditions. Nomographs are available, which aid in the rapid adjustment to the isokinetic sampling rate without excessive computations. These nomographs are designed for use when the Type S pitot tube coefficient is 0.85 ± 0.02 , and the stack gas equivalent density (dry molecular weight) is equal to 29 ± 4 . APTD-0576 details the procedure for using the nomographs. If C_p and M_d are outside the above stated ranges, do not use the nomographs unless appropriate steps (see Citation 7 in Section 7) are taken to compensate for the deviations.

When the stack is under significant negative pressure (height of impinger stem), take care to close the coarse adjust valve before inserting the probe extension assembly into the stack to prevent water from being forced backward. If necessary, the pump may be turned on with the coarse adjust valve closed.

When the probe is in position, block off the openings around the probe and porthole to prevent unrepresentative dilution of the gas stream.

Traverse the stack cross section, as required by Method 1 or as specified by the Administrator, being careful not to bump the probe nozzle into the stack walls when sampling near the walls or when removing or inserting the probe extension through the portholes, to minimize chance of extracting deposited material.

During the test run, take appropriate steps (e.g., adding crushed ice to the impinger ice bath) to maintain a temperature of less than 20°C (68°F) at the condenser outlet; this will prevent excessive moisture losses. Also, periodically check the level and zero of the manometer.

If the pressure drop across the filter becomes too high, making isokinetic sampling difficult to maintain, the filter may be replaced in the midst of a sample run. It is recommended that another complete filter holder assembly be used rather than attempting to change the filter itself. Before a new filter holder is installed, conduct a leak check, as outlined in Section 4.1.4.2. The total particulate weight shall include the summation of all filter assembly catches.

A single train shall be used for the entire sample run, except in cases where simultaneous sampling is required in two or more separate ducts or at two or more different locations within the same duct, or, in cases where equipment failure necessitates a change of trains. In all other situations, the use of two or more trains will be subject to the approval of the Administrator. Note that when two or more trains are used, a separate analysis of the collected particulate from each train shall be performed, unless identical nozzle sizes were used on all trains, in which case the particulate catches from the individual trains may be combined and a single analysis performed.

At the end of the sample run, turn off the pump, remove the probe extension assembly from the stack, and record the final dry gas meter reading. Perform a leak-check, as outlined in Section 4.1.4.3. Also, leak-check the pitot lines as described in Section 3.1 of Method 2; the lines must pass this leak-

check, in order to validate the velocity head data.

4.1.6 Calculation of Percent Isokinetic. Calculate percent isokinetic (see Section 6.11) to determine whether another test run should be made. If there is difficulty in maintaining isokinetic rates due to source conditions, consult with the Administrator for possible variance on the isokinetic rates.

4.2 Sample Recovery. Proper cleanup procedure begins as soon as the probe extension assembly is removed from the stack at the end of the sampling period. Allow the assembly to cool.

When the assembly can be safely handled, wipe off all external particulate matter near the tip of the probe nozzle and place a cap over it to prevent losing or gaining particulate matter. Do not cap off the probe tip tightly while the sampling train is cooling down as this would create a vacuum in the filter holder, forcing condenser water backward.

Before moving the sample train to the cleanup site, disconnect the filter holder-probe nozzle assembly from the probe extension; cap the open inlet of the probe extension. Be careful not to lose any condensate, if present. Remove the umbilical cord from the condenser outlet and cap the outlet. If a flexible line is used between the first impinger (or condenser) and the probe extension, disconnect the line at the probe extension and let any condensed water or liquid drain into the impingers or condenser. Disconnect the probe extension from the condenser; cap the probe extension outlet. After wiping off the silicone grease, cap off the condenser inlet. Ground glass stoppers, plastic caps, or serum caps (whichever are appropriate) may be used to close these openings.

Transfer both the filter holder-probe nozzle assembly and the condenser to the cleanup area. This area should be clean and protected from the wind so that the chances of contaminating or losing the sample will be minimized.

Save a portion of the acetone used for cleanup as a blank. Take 200 ml of this acetone directly from the wash bottle being used and place it in a glass sample container labeled "acetone blank."

Inspect the train prior to and during disassembly and note any abnormal conditions. Treat the samples as follows:

Container No. 1. Carefully remove the filter from the filter holder and place it in its identified petri dish container. Use a pair of tweezers and/or clean disposable surgical gloves to handle the filter. If it is necessary to fold the filter, do so such that the particulate cake is inside the fold. Carefully transfer to the petri dish any particulate matter and/or filter fibers which adhere to the filter holder gasket, by using a dry Nylon bristle brush and/or a sharp-edged blade. Seal the container.

Container No. 2. Taking care to see that dust on the outside of the probe nozzle or other exterior surfaces does not get into the sample, quantitatively recover particulate matter or any condensate from the probe nozzle, fitting, and front half of the filter holder by washing these components with acetone and placing the wash in a glass container. Distilled water may be used instead of acetone when approved by the Administrator and shall be used when specified by the Administrator; in these cases, save a water blank and follow Administrator's directions on analysis. Perform the acetone rinses as follows:

Carefully remove the probe nozzle and clean the inside surface by rinsing with acetone from a wash bottle and brushing with a Nylon bristle brush. Brush until acetone rinse shows no visible particles, after which make a final rinse of the inside surface with acetone.

Brush and rinse with acetone the inside parts of the fitting in a similar way until no visible particles remain. A funnel (glass or polyethylene) may be used to aid in transferring liquid washes to the container. Rinse the brush with acetone and quantitatively collect these washings in the sample container. Between sampling runs, keep brushes clean and protected from contamination.

After ensuring that all joints are wiped clean of silicone grease (if applicable), clean the inside of the front half of the filter holder by rubbing the surfaces with a Nylon bristle brush and rinsing with acetone. Rinse each surface three times or more if needed to remove visible particulate. Make final rinse of the brush and filter holder. After all acetone washings and particulate matter are collected in the sample container, tighten the lid on the sample container so that acetone will not leak out when it is shipped to the laboratory. Mark the height of the fluid level to determine whether or not leakage occurred during transport. Label the container to clearly identify its contents.

Container No. 3. If silica gel is used in the condenser system for moisture content determination, note the color of the gel to determine if it has been completely spent; make a notation of its condition. Transfer the silica gel back to its original container and seal. A funnel may make it easier to pour the silica gel without spilling, and a rubber policeman may be used as an aid in removing the silica gel. It is not necessary to remove the small amount of dust particles that may adhere to the walls and are difficult to remove. Since the gain in weight is to be used for moisture calculations, do not use any water or other liquids to transfer the silica gel. If a balance is available in the field, follow the procedure for Container No. 3 under "Analysis."

Condenser Water. Treat the condenser or impinger water as follows: make a notation of any color or film in the liquid catch. Measure the liquid volume to within ± 1 ml by using a graduated cylinder or, if a balance is available, determine the liquid weight to within ± 0.5 g. Record the total volume or weight of liquid present. This information is required to calculate the moisture content of the effluent gas. Discard the liquid after measuring and recording the volume or weight.

4.3 Analysis. Record the data required on the example sheet shown in Figure 17-4. Handle each sample container as follows:

Container No. 1. Leave the contents in the shipping container or transfer the filter and any loose particulate from the sample container to a tared glass weighing dish. Desiccate for 24 hours in a desiccator containing anhydrous calcium sulfate. Weigh to a constant weight and report the results to the nearest 0.1 mg. For purposes of this Section, 4.3, the term "constant weight" means a difference of no more than 0.5 mg or 1 percent of total weight less tare weight, whichever is greater, between two consecutive weighings, with no less than 6 hours of desiccation time between weighings.

Alternatively, the sample may be oven dried at the average stack temperature or

RULES AND REGULATIONS

105° C (220° F), whichever is less, for 2 to 3 hours, cooled in the desiccator, and weighed to a constant weight, unless otherwise speci-

fied by the Administrator. The tester may also opt to oven dry the sample at the average stack temperature or 105° C (220° F),

whichever is less, for 2 to 3 hours, weigh the sample, and use this weight as a final weight.

Plant _____

Date _____

Run No. _____

Filter No. _____

Amount liquid lost during transport _____

Acetone blank volume, ml _____

Acetone wash volume, ml _____

Acetone blank concentration, mg/mg (equation 17-4) _____

Acetone wash blank, mg (equation 17-5) _____

CONTAINER NUMBER	WEIGHT OF PARTICULATE COLLECTED, mg		
	FINAL WEIGHT	TARE WEIGHT	WEIGHT GAIN
1			
2			
TOTAL			
Less acetone blank			
Weight of particulate matter			

	VOLUME OF LIQUID WATER COLLECTED	
	IMPINGER VOLUME, ml	SILICA GEL WEIGHT, g
FINAL		
INITIAL		
LIQUID COLLECTED		
TOTAL VOLUME COLLECTED		g* ml

* CONVERT WEIGHT OF WATER TO VOLUME BY DIVIDING TOTAL WEIGHT INCREASE BY DENSITY OF WATER (1g/ml).

$$\frac{\text{INCREASE, g}}{1 \text{ g/ml}} = \text{VOLUME WATER, ml}$$

Figure 17-4. Analytical data.

Container No. 2. Note the level of liquid in the container and confirm on the analysis sheet whether or not leakage occurred during transport. If a noticeable amount of leakage has occurred, either void the sample or use methods, subject to the approval of the Administrator, to correct the final results. Measure the liquid in this container either volumetrically to ± 1 ml or gravimetrically to ± 0.5 g. Transfer the contents to a tared 250-ml beaker and evaporate to dryness at ambient temperature and pressure. Desiccate for 24 hours and weigh to a constant weight. Report the results to the nearest 0.1 mg.

Container No. 3. This step may be conducted in the field. Weigh the spent silica gel (or silica gel plus impinger) to the nearest 0.5 g using a balance.

"Acetone Blank" Container. Measure acetone in this container either volumetrically or gravimetrically. Transfer the acetone to a tared 250-ml beaker and evaporate to dryness at ambient temperature and pressure. Desiccate for 24 hours and weigh to a constant weight. Report the results to the nearest 0.1 mg.

NOTE.—At the option of the tester, the contents of Container No. 2 as well as the acetone blank container may be evaporated at temperatures higher than ambient. If evaporation is done at an elevated temperature, the temperature must be below the boiling point of the solvent; also, to prevent "bumping," the evaporation process must be closely supervised, and the contents of the beaker must be swirled occasionally to maintain an even temperature. Use extreme care, as acetone is highly flammable and has a low flash point.

5. Calibration. Maintain a laboratory log of all calibrations.

5.1 Probe Nozzle. Probe nozzles shall be calibrated before their initial use in the field. Using a micrometer, measure the inside diameter of the nozzle to the nearest

0.025 mm (0.001 in.). Make three separate measurements using different diameters each time, and obtain the average of the measurements. The difference between the high and low numbers shall not exceed 0.1 mm (0.004 in.). When nozzles become nicked, dented, or corroded, they shall be reshaped, sharpened, and recalibrated before use. Each nozzle shall be permanently and uniquely identified.

5.2 Pitot Tube. If the pitot tube is placed in an interference-free arrangement with respect to the other probe assembly components, its baseline (isolated tube) coefficient shall be determined as outlined in Section 4 of Method 2. If the probe assembly is not interference-free, the pitot tube assembly coefficient shall be determined by calibration, using methods subject to the approval of the Administrator.

5.3 Metering System. Before its initial use in the field, the metering system shall be calibrated according to the procedure outlined in APTD-0576. Instead of physically adjusting the dry gas meter dial readings to correspond to the wet test meter readings, calibration factors may be used to mathematically correct the gas meter dial readings to the proper values.

Before calibrating the metering system, it is suggested that a leak-check be conducted. For metering systems having diaphragm pumps, the normal leak-check procedure will not detect leakages within the pump. For these cases the following leak-check procedure is suggested: make a 10-minute calibration run at $0.00057 \text{ m}^3/\text{min}$ (0.02 cfm); at the end of the run, take the difference of the measured wet test meter and dry gas meter volumes; divide the difference by 10, to get the leak rate. The leak rate should not exceed $0.00057 \text{ m}^3/\text{min}$ (0.02 cfm).

After each field use, the calibration of the metering system shall be checked by performing three calibration runs at a single, intermediate orifice setting (based on the

previous field test), with the vacuum set at the maximum value reached during the test series. To adjust the vacuum, insert a valve between the wet test meter and the inlet of the metering system. Calculate the average value of the calibration factor. If the calibration has changed by more than 5 percent, recalibrate the meter over the full range of orifice settings, as outlined in APTD-0576.

Alternative procedures, e.g., using the orifice meter coefficients, may be used, subject to the approval of the Administrator.

NOTE.—If the dry gas meter coefficient values obtained before and after a test series differ by more than 5 percent, the test series shall either be voided, or calculations for the test series shall be performed using whichever meter coefficient value (i.e., before or after) gives the lower value of total sample volume.

5.4 Temperature Gauges. Use the procedure in Section 4.3 of Method 2 to calibrate in-stack temperature gauges. Dial thermometers, such as are used for the dry gas meter and condenser outlet, shall be calibrated against mercury-in-glass thermometers.

5.5 Leak Check of Metering System Shown in Figure 17-1. That portion of the sampling train from the pump to the orifice meter should be leak checked prior to initial use and after each shipment. Leakage after the pump will result in less volume being recorded than is actually sampled. The following procedure is suggested (see Figure 17-5). Close the main valve on the meter box. Insert a one-hole rubber stopper with rubber tubing attached into the orifice exhaust pipe. Disconnect and vent the low side of the orifice manometer. Close off the low side orifice tap. Pressurize the system to 13 to 18 cm (5 to 7 in.) water column by blowing into the rubber tubing. Pinch off the tubing and observe the manometer for one minute. A loss of pressure on the manometer indicates a leak in the meter box; leaks, if present, must be corrected.

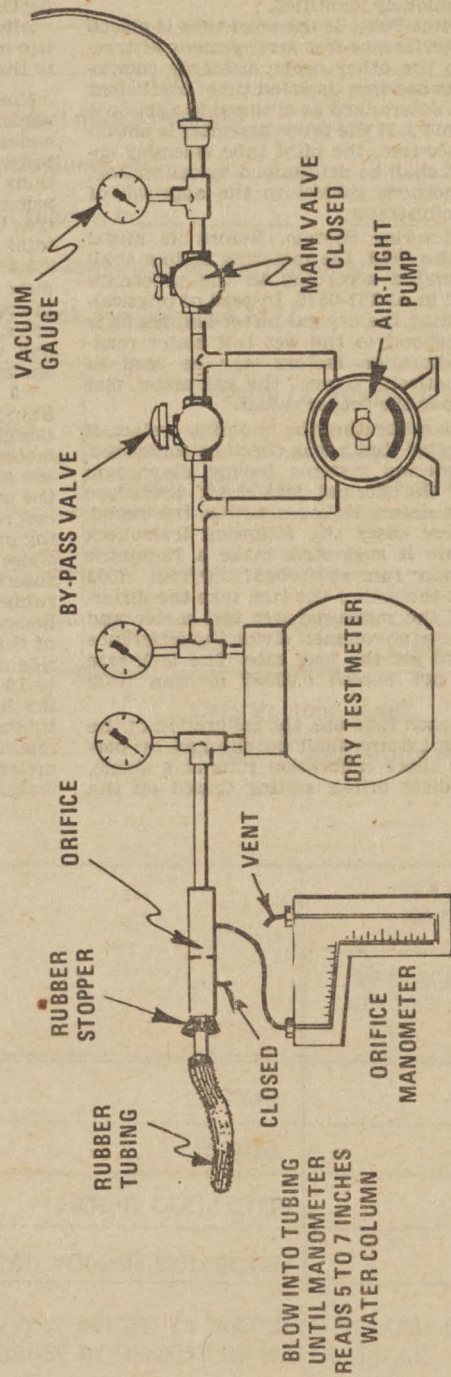


Figure 17-5. Leak check of meter box.

5.6 Barometer. Calibrate against a mercury barometer.

6. Calculations. Carry out calculations, retaining at least one extra decimal figure beyond that of the acquired data. Round off figures after the final calculation. Other forms of the equations may be used as long as they give equivalent results.

6.1 Nomenclature.

A_n = Cross-sectional area of nozzle, m^2 (ft^2).
 B_{ws} = Water vapor in the gas stream, proportion by volume.

C_a = Acetone blank residue concentration, mg/g .

c_p = Concentration of particulate matter in stack gas, dry basis, corrected to standard conditions, $g/dscm$ ($g/dscf$).

I = Percent of isokinetic sampling.

L_a = Maximum acceptable leakage rate for either a pretest leak check or for a leak check following a component change; equal to $0.00057 m^3/min$ ($0.02 cfm$) or 4 percent of the average sampling rate, whichever is less.

L_i = Individual leakage rate observed during the leak check conducted prior to the "ith" component change ($i=1, 2, 3, \dots, n$), m^3/min (cfm).

L_p = Leakage rate observed during the post-test leak check, m^3/min (cfm).

m_n = Total amount of particulate matter collected, mg .

M_w = Molecular weight of water, $18.0 g/g\text{-mole}$ ($18.0 lb/lb\text{-mole}$).

m_a = Mass of residue of acetone after evaporation, mg .

P_{bar} = Barometric pressure at the sampling site, $mm\ Hg$ ($in.\ Hg$).

P_s = Absolute stack gas pressure, $mm\ Hg$ ($in.\ Hg$).

P_{std} = Standard absolute pressure, $760\ mm\ Hg$ ($29.92\ in.\ Hg$).

R = Ideal gas constant, $0.06236\ mm\ Hg\text{-}m^3/K\text{-}g\text{-mole}$ ($21.85\ in.\ Hg\text{-}ft^3/R\text{-}lb\text{-mole}$).

T_m = Absolute average dry gas meter temperature (see Figure 17-3), $^{\circ}K$ ($^{\circ}R$).

T_s = Absolute average stack gas temperature (see Figure 17-3), $^{\circ}K$ ($^{\circ}R$).

T_{std} = Standard absolute temperature, $293^{\circ}K$ ($528^{\circ}R$).

V_a = Volume of acetone blank, ml .

V_{aw} = Volume of acetone used in wash, ml .

V_{ic} = Total volume of liquid collected in impingers and silica gel (see Figure 17-4), ml .

V_m = Volume of gas sample as measured by dry gas meter, dcm ($dscf$).

$V_{m(std)}$ = Volume of gas sample measured by the dry gas meter, corrected to standard conditions, $dscm$ ($dscf$).

$V_{w(std)}$ = Volume of water vapor in the gas sample, corrected to standard conditions, scm (scf).

v_s = Stack gas velocity, calculated by Method 2, Equation 2-9, using data obtained from Method 17, m/sec (ft/sec).

W_a = Weight of residue in acetone wash, mg .

Y = Dry gas meter calibration coefficient.

ΔH = Average pressure differential across the orifice meter (see Figure 17-3), $mm\ H_2O$ ($in.\ H_2O$).

ρ_a = Density of acetone, mg/ml (see label on bottle).

ρ_w = Density of water, $0.9982\ g/ml$ ($0.002201\ lb/ml$).

θ = Total sampling time, min .

θ_1 = Sampling time interval, from the beginning of a run until the first component change, min .

θ_2 = Sampling time interval, between two successive component changes, beginning with the interval between the first and second changes, min .

θ_s = Sampling time interval, from the final (n^{th}) component change until the end of the sampling run, min .

13.6 = Specific gravity of mercury.

60 = Sec/min.

100 = Conversion to percent.

6.2 Average dry gas meter temperature and average orifice pressure drop. See data sheet (Figure 17-3).

6.3 Dry Gas Volume. Correct the sample volume measured by the dry gas meter to standard conditions ($20^{\circ}\ C$, $760\ mm\ Hg$ or $68^{\circ}\ F$, $29.92\ in.\ Hg$) by using Equation 17-1.

$$V_{m(std)} = V_m Y \left(\frac{T_{std}}{T_m} \right) \left[\frac{P_{bar} + \frac{\Delta H}{13.6}}{P_{std}} \right]$$

$$= K_1 V_m Y \frac{P_{bar} + (\Delta H/13.6)}{T_m}$$

Equation 17-1

where:

$K_1 = 0.3858^{\circ}\ K/mm\ Hg$ for metric units;
 $17.64^{\circ}\ R/in.\ Hg$ for English units.

NOTE.—Equation 17-1 can be used as written unless the leakage rate observed during any of the mandatory leak checks (i.e., the post-test leak check or leak checks conducted prior to component changes) exceeds L_a . If L_p or L_i exceeds L_a , Equation 17-1 must be modified as follows:

(a) Case I. No component changes made during sampling run. In this case, replace V_m in Equation 17-1 with the expression:

$$[V_m - (L_p - L_a)\theta]$$

(b) Case II. One or more component changes made during the sampling run. In this case, replace V_m in Equation 17-1 by the expression:

$$\{V_m - (L_1 - L_a)\theta_1 - \sum_{i=2}^n (L_i - L_a)\theta_i - (L_p - L_a)\theta_p\}$$

and substitute only for those leakage rates (L_i or L_p) which exceed L_a .

6.4 Volume of water vapor.

$$V_{w(std)} = V_{ic} \left(\frac{\rho_w}{M_w} \right) \left(\frac{RT_{std}}{P_{std}} \right) = K_2 V_{ic}$$

Equation 17-2

where:

$K_2 = 0.001333\ m^3/ml$ for metric units; $0.04707\ ft^3/ml$ for English units.

6.5 Moisture Content.

$$B_{ws} = \frac{V_{w(std)}}{V_{m(std)} + V_{w(std)}}$$

Equation 17-3

6.6 Acetone Blank Concentration.

$$C_a = \frac{m_a}{V_a \rho_a}$$

Equation 17-4

6.7 Acetone Wash Blank.

$$W_a = C_a V_{aw} \rho_a$$

Equation 17-5

6.8 Total Particulate Weight. Determine the total particulate catch from the sum of the weights obtained from containers 1 and 2 less the acetone blank (see Figure 17-4).

NOTE.—Refer to Section 4.1.5 to assist in calculation of results involving two or more filter assemblies or two or more sampling trains.

6.9 Particulate Concentration.

$$c_p = (0.001\ g/mg) (m_n/V_{m(std)})$$

Equation 17-6

6.10 Conversion Factors:

From	To	Multiply by
scf	m^3	0.02832
g/ft^3	gr/ft^3	15.43
g/ft^3	lb/ft^3	2.205×10^{-3}
g/ft^3	g/m^3	35.31

6.11 Isokinetic Variation.

6.11.1 Calculation from Raw Data.

$$I = \frac{100 T_s [K_3 V_{ic} + (V_m/T_m) (P_{bar} + \Delta H/13.6)]}{60 \theta v_s P_s A_n}$$

Equation 17-7

where:

$K_3 = 0.003454\ mm\ Hg\text{-}m^3/ml\text{-}^{\circ}K$ for metric units; $0.002669\ in.\ Hg\text{-}ft^3/ml\text{-}^{\circ}R$ for English units.

6.11.2 Calculation from Intermediate Values.

$$I = \frac{T_s V_{m(std)} P_{std} 100}{T_{std} v_s \theta A_n P_s 60 (1 - B_{ws})}$$

$$= K_4 \frac{T_s V_{m(std)}}{P_s v_s A_n \theta (1 - B_{ws})}$$

Equation 17-8

where:

$K_4 = 4.320$ for metric units; 0.09450 for English units.

6.12 Acceptable Results. If 90 percent 010110 percent, the results are acceptable. If the results are low in comparison to the standard and I is beyond the acceptable range, or, if I is less than 90 percent, the Administrator may opt to accept the results. Use Citation 4 in Section 7 to make judgments. Otherwise, reject the results and repeat the test.

7. Bibliography.

1. Addendum to Specifications for Incinerator Testing at Federal Facilities. PHS, NCAPC. December 6, 1967.

2. Martin, Robert M., Construction Details of Isokinetic Source-Sampling Equipment. Environmental Protection Agency. Research Triangle Park, N.C. APTD-0581. April, 1971.

3. Rom, Jerome J., Maintenance, Calibration, and Operation of Isokinetic Source-Sampling Equipment. Environmental Protection Agency. Research Triangle Park, N.C. APTD-0576. March, 1972.

4. Smith, W. S., R. T. Shigehara, and W. F. Todd. A Method of Interpreting Stack Sampling Data. Paper Presented at the 63rd

Annual Meeting of the Air Pollution Control Association, St. Louis, Mo. June 14-19, 1970.

5. Smith, W. S., et al., Stack Gas Sampling Improved and Simplified with New Equipment. APCA Paper No. 67-119. 1967.

6. Specifications for Incinerator Testing at Federal Facilities. PHS, NCAPC. 1967.

7. Shigehara, R. T., Adjustments in the EPA Nomograph for Different Pitot Tube Coefficients and Dry Molecular Weights. Stack Sampling News 2:4-11. October, 1974.

8. Vollaro, R. F., A Survey of Commercially Available Instrumentation for the Measurement of Low-Range Gas Velocities. U.S. Environmental Protection Agency, Emission

Measurement Branch, Research Triangle Park, N.C. November, 1976 (unpublished paper).

9. Annual Book of ASTM Standards. Part 26. Gaseous Fuels; Coal and Coke; Atmospheric Analysis. American Society for Testing and Materials. Philadelphia, Pa. 1974. pp. 617-622.

10. Vollaro, R. F., Recommended Procedure for Sample Traverses in Ducts Smaller than 12 Inches in Diameter. U.S. Environmental Protection Agency, Emission Measurement Branch. Research Triangle Park, N.C. November, 1976.

[FR Doc. 78-4795 Filed 2-22-78; 8:45 am]